PIHANS • XVIII

Dark Ages and Nomads c. 1000 B.C.

Studies in Iranian and Anatolian Archaeology

By
R. Ghirshman, Edith Porada, R.H. Dyson Jr., J. Tembach, R.S. Young,
Ellen L. Kohler and Machteld J. Mellink (editor)

Nederlands Instituut voor het Nabije Oosten
Leiden
1964

UITGAVEN VAN HET
NEDERLANDS HISTORISCH-ARCHAEOLOGISCH INSTITUUT TE ISTANBUL

Publications de l'Institut historique et archéologique néerlandais de Stamboul

sous la direction de
A. A. CENSE et A. A. KAMPMAN

XVIII

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Noordeindsplein 4–6, Leiden

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Printed in the Netherlands

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I. INTRODUCTION

by

MACHTELD J. MELLINK

In conjunction with various programs to celebrate the 75th anniversary of Bryn Mawr College, a symposium was organized with the ambitious title of "The Nomadic Impact on the Ancient World after 1000 B.C." The meeting was planned to give a number of specialists an opportunity to discuss some aspects of the large and complicated problem of nomadic intrusions in the settled world of ancient Greece and the Near East, and more specifically to exchange views on the events around 1000 B.C. when large parts of the ancient world were engulfed in "Dark Ages".

These Dark Ages have recently been investigated anew by archaeologists and prehistorians. The "Doric invasion" in Greece and its concomitant upheavals, the rise of Thracian and Phrygian tribes in Asia Minor, the invasions of Cimmerians and Scythians via the Caucasus, the Iranian migrations which affected the Mannaeans and brought in the Medes and Persians, have all received new attention as a result of recent excavation campaigns, notably those at Gordion in Phrygia, at various Urartian sites in Turkey and Russia, and at Hasanlu in Iran. The new preoccupation with the Dark Ages also led to a re-examination of materials which had long been prominent in museums and private collections, notably the Luristan bronzes which are subject to such a multiplicity of interpretations and chronologies in archaeological literature.

It was clear from the beginning that the symposium would be no more than a presentation and discussion of some views, not a fundamental reappraisal of the problem of Indo-Europeans or Nomads in the Dark Ages. Bryn Mawr College was fortunate to have present at the symposium some of the foremost specialists from the Near Eastern field, and to have the opening address and the initial discussion contributed by Professor R. Ghirshman, Director of the French Archaeological Mission in Iran.

The program of the symposium is reprinted here:

Monday, October 12, 1959, 8.30 p.m.

R. GHIRSHMAN: "Les invasions des nomades en Iran au début du Ier millénaire avant J.-C."

Tuesday, October 13, 1959.

R. GHIRSHMAN: Notes and comments on the previous lecture.

E. PORADA, Columbia University: "Light from Iran on Western Asiatic Art of the Dark Ages".

R. S. YOUNG, University of Pennsylvania: "The Nomadic Impact: Gordion".

E. L. KOHLER, University of Pennsylvania: "Phrygian Animal Style and Nomadic Art".

Discussion.

The substance of the four papers presented at the meeting is published in this volume. As a clarification of points raised in the discussion, an article by Mr. Joseph Ternbach on a special group of iron daggers from Luristan is included in the publication. Equally relevant to the chronological problems of the Dark Ages is the contribution written by Robert H. Dyson Jr. of the University of Pennsylvania on certain weapon types of Northern Iran. Excavation duties at Hasanlu prevented Mr. Dyson from attending the symposium, but his article is gratefully incorporated in the record. A note by the editor has been appended to the papers to re-examine some of the initial questions in the light of the opinions and conclusions presented during the symposium. The papers were written in the years 1959–60 and are presented here in unaltered form with no more than occasional references to later discoveries and literature. A loan exhibit of Iranian and Nomadic Art, organized by Mrs. John B. Bunker (of the Denver Art Museum, Denver, Colorado) and Mrs. Fletcher M. Harper (of the Metropolitan Museum of Art, New York), formed an appropriate background to the symposium. The catalogue of this exhibit has been reserved for publication in other form.

The Netherlands Historical and Archaeological Institute in Istanbul has liberally offered to include these papers in its series of publications. We are most grateful for the scholarly hospitality offered thus by the Institute and its Editors, Dr. A. A. Cense and Dr. A. A. Kampman. The horizon of Anatolian archaeology extends to Iran and beyond. It seems appropriate for the present papers to appear under the auspices of the new and active Institute in Istanbul.

In preparing the manuscripts for the press valuable editorial aid was given by Dr. Theresa Howard Carter, assistant in the Department of Classical and Near Eastern Archaeology at Bryn Mawr College.

With the publication of this record a vote of thanks is offered to the authorities of Bryn Mawr College and its 75th Anniversary Committee who enabled us to organize this symposium. Gratitude is due to their liberal sponsorship of what might have seemed a dark and disorderly topic of discussion. The results, if not of illuminating finality, have proved stimulating to the participants in two days of nomadic speculation. The problems remain important, and this record, it is hoped, will form a contribution to the continuing explorations, on paper and in the field, of a dynamic, if dark, age.

II. INVASIONS DES NOMADES

sur le Plateau Iranien aux premiers siècles du Ier millénaire avant J.-C.

par

ROMAN GHIRSHMAN

L'arrivée des Iraniens, Mèdes et Perses, sur le Plateau auquel ils donnèrent leur nom, l'invasion des Cimmériens et des Scythes, Iraniens eux aussi et qui les suivirent quelques siècles plus tard, embrassent une période de l'histoire iranienne qu'on peut appeler le «dark age», et sur laquelle les fouilles archéologiques seules seront susceptibles de projeter plus de lumière. Celles qui ont été réalisées au cours des trois dernières décades permettent déjà de reconnaître les principaux moments de ces mouvements de caractère ethnique et, avec l'aide de certains textes assyriens, de rattacher ces peuples aux diverses régions de l'Iran occidental où ils sont venus se fixer, et de chercher à leur attribuer un nombre déjà important de monuments d'art connus.

Des changements profonds s'observent sur le Plateau aux abords de l'an 1000 avant J.-C., changements qui touchent le domaine de la vie sociale et religieuse de la population, ainsi que les pratiques funéraires. Certains indices semblent révéler que le vrai nomadisme en Iran n'aurait commencé que vers cette époque et, en contrepartie s'érige et se développe la vie urbaine. Le trait saillant de celle-ci serait l'apparition de terrasses artificielles qui supporteront le siège d'un chef, d'un prince, tandis que la «ville basse» s'étendra autour. Cette nouvelle conception du bourg se fait reconnaître aussi bien à Sialk proto-historique qu'à Masjid-i Solaiman, siège des premiers achéménides; elle reste caractéristique de Pasargade, de Suse et de Persépolis, et son origine devrait être attribuée aux influences urartiennes, civilisation qui marqua de son empreinte la naissante civilisation des Iraniens.

Les morts ne sont plus inhumés sous les sols des maisons – pratique observée le long de millénaires – mais de vraies «villes des morts», de vastes nécropoles se forment à une certaine distance des villes.

C'est Sialk, au sud de Téhéran et près de Kashan, qui a révélé l'aspect de la culture et de l'art des proto-mèdes, datant du Xe–IXe siècle avant J.-C. Pour la première fois dans l'histoire du Plateau Iranien se trouvent attestées les tombes mégalithiques qui abritaient des morts appartenant à un peuple de cavaliers-guerriers qui avaient été inhumés avec un riche ensemble d'armes, de pièces de harnachement en bronze et en fer.

L'objet le plus représentatif du mobilier funéraire est un vase à long bec-versoir, orné d'un décor riche en sujets géometriques, animaliers et humains, riche aussi en ornements plastiques. Aussi bien l'animal que l'être humain se greffent sur le bec ou sur la panse, qui semblent garder le liquide sacré, probablement destiné aux libations. Une analogie avec des coutumes urartiennes dans l'art funéraire des

Iraniens existe. La «typologie» est déjà fixée, les formes ne changeront guère pendant des siècles, consacrées par la religion; ces vases seront destinés aux offrandes sacrificielles ou au rituel funéraire.

Au cours de la première moitié du VIIIe siècle avant J.-C., et peut-être même avant, s'installe dans les montagnes du Luristan un nouveau peuple: les Cimmériens. Cavaliers-guerriers et éleveurs, proches parents des Mèdes, ce peuple forme avec ceux-ci une symbiose qui ressort de l'identité des deux arts. Alliés aux Mèdes, ils résistent aux Assyriens. Métallurgistes habiles, ils produisent un nombre considérable d'objets en bronze, dont les éléments de harnachement, trouvés en grande quantité dans leurs tombes mégalithiques, remplacent le sacrifice de chevaux attesté dans les pratiques funéraires de leurs proches parents, les Scythes.

Les sources littéraires assyriennes du temps des rois Sennacherib, Asarhaddon et Assurbanipal, révèlent le double rôle qu'a joué l'élément cimmérien dans les destinées de la puissance assyrienne. Dans la politique expansionniste des rois assyriens, le Plateau, riche en métaux, en bétail, et, en particulier, en chevaux de remonte, représentait un attrait puissant pour les expéditions militaires, moins destinées à des gains territoriaux qu'à la prise des biens indispensables à l'existence du grand royaume. Dans la description de ces campagnes, de même que dans les demandes aux oracles, le peuple des Cimmériens est mentionné maintes fois à côté des Mèdes, des Ellippi ou des Mannas. De ces descriptions, on peut conclure que le centre des Cimmériens se trouvait dans les montagnes du Luristan, ce qui permettrait de leur attribuer les tombes dont on désigne le mobilier funéraire sous le nom de «bronzes du Luristan».

Ceci n'est qu'un des aspects de l'activité des Cimmériens. D'autres textes assyriens révèlent que des détachements de Cimmériens entraient dans la composition de l'armée assyrienne, autrement dit qu'une partie de ces cavaliers étaient engagés comme mercenaires au service du roi d'Assyrie. Le cas de ce double rôle des guerriers dans l'histoire de l'Orient n'est pas unique; il ne précède que de peu la période de l'histoire perse où les Grecs étaient, tout comme les Cimmériens, des ennemis en même temps que mercenaires des Rois des Rois. En tant que tels, les Cimmériens durent prendre part à la terrible invasion de la Babylonie et de l'Elam par Sennacherib qui détruisit Babylone et punit plusieurs villes. Du pillage des temples lors de cette campagne, proviennent, d'après moi, les objets en bronze qui ont été trouvées dans les tombes du Luristan, et qui portent des inscriptions aux noms des princes et des officiels de la Babylonie de la fin du IIe millénaire avant J.-C. Objets votifs, déposés naguère dans les sanctuaires, armes ou vaisselle, ornées d'inscriptions, devaient prendre une valeur particulière aux yeux de ces guerriers qui les conservèrent comme objets dotés d'une force magique et même curative. Ainsi, on les gardait précieusement, et ils étaient déposés auprès de leur possesseur dans sa dernière demeure.

Voisins et alliés des Mèdes, les Cimmériens pratiquaient le même art des métallur-

gistes que ceux-là. La confirmation en vient des trouvailles faites par la Mission française en 1914 à Hamadan (non publiées). Parmi les objets mis au jour, se trouvait une cruche à long bec-versoir, identique à celles que l'on connaît en nombre au Luristan, et semblable en tous points à celles que nous avons sorties, aussi bien en terre cuite peinte qu'en métal, des tombes de la Nécropole B de Sialk.

A cela ne se limite pas notre investigation sur l'Iran occidental des premiers siècles du Ier millénaire avant J.-C. La production métallurgique, d'une abondance inconnue auparavant, avec une richesse et une variété insoupçonnée de formes et de modèles, présente une série d'affinités avec le centre métallurgique voisin et des plus importants qu'était le royaume d'Urartu. Ainsi, toute la région montagneuse qui embrasse les monts des Zagros et qui englobe la région de l'Arménie autour du lac de Van, se présente, à cette époque, comme une vaste «koiné» métallurgique. Le «croissant fertile» des millénaires précédents semble céder sa place au «croissant orique» dont la production est recherchée par les pays voisins ou même très éloignés. De fait, les objets en bronze du Luristan ont été trouvés à Samos et en Crète; les produits d'Urartu sont attestés un peu partout, sur les îles grecques, en Grèce proprement dite et jusque dans les tombes princières étrusques en Italie. Cette expansion commerciale ou artisanale doit, semble-t-il, refléter une nouvelle situation politique sur la carte de l'Asie occidentale de l'époque. Elle se traduit par une ascension de la puissance du royaume d'Urartu qui, profitant de la faiblesse passagère de l'Assyrie au VIIIe siècle avant J.-C., contrôle Alep dès la première moitié de ce siècle, et a donc un débouché sur la côte syrienne de la Méditerranée. Par la conquête de la Colchide, s'ouvre une autre voie vers la côte orientale et le sud-est de la mer Noire. L'époque se trouve être propice pour entrer en un contact plus étroit avec le monde occidental: elle correspond à la période où naissent sur les côtes de l'Asie Mineure, aussi bien au sud de celle-ci qu'au nord, les premières colonies grecques. Du fait de ces contacts, soit directs soit indirects, les artistes grecs de la fin de la période géometrique et surtout de celle dite «orientalisante», ne devaient pas ignorer les formules de l'art de cette «koiné», autrement dit, ils devaient connaître aussi certains aspects de l'art iranien de l'époque. Une série de concordances plaident, en principe, en faveur de l'emprunt plutôt que des coïncidences.

Les Scythes comme les Cimmériens, d'après les sources historiques (Hérodote), ont aussi suivi la route du Caucase et de la Transcaucasie; toutefois, leur apparition dans la région du Kurdistan actuel n'est attestée par les textes assyriens qu'au cours du premier tiers du VIIe siècle avant J.-C. Venant de la Russie du Sud, ils ont dû commencer leur mouvement un siècle plus tôt, car les archéologues soviétiques reconnaissent leurs traces en Transcaucasie déjà au VIIIe siècle avant J.-C., quand ils entrèrent en contact, dans cette région, avec le royaume urartien, dont la culture marqua celle des Scythes. Il se peut que leurs premiers éléments aient atteint la région du lac d'Urmiya déjà au VIIIe siècle avant J.-C., si on s'accorde à recon-

naître comme scythe la tombe d'un guerrier inhumé avec quatre chevaux, qui a été découverte à Hassanlu (inédite).

Les Scythes, de même que leurs proches parents les Cimmériens, débutent dans l'histoire de l'Iran par leur alliance avec les Mèdes révoltés contre l'Assyrie dont les conquêtes touchent la région de Téhéran. Mais, assez rapidement, prenant parti pour le plus fort, ils changent de camp et deviennent les alliés du roi d'Assyrie. Leur royaume, qu'ils forment à la lisière orientale de celui d'Assyrie, au sud du lac d'Urmiya, englobe le pays de Manna et, appuyés par leur puissant allié, ils étendent leur domination sur les Mèdes.

La position des Scythes devient si forte que leur roi demande la main d'une princesse assyrienne; c'est aussi l'époque où, par leur raids dévastateurs à travers l'Asie Occidentale, ils touchent la frontière égyptienne. La découverte fortuite de ce qu'on appelle le Trésor de Ziwiyé, illustre cette courte période de la domination scythe sur l'Iran occidental.

Mis au jour par les paysans d'un village de la région de Sakkez, au sud du lac d'Urmiya, cet ensemble d'objets en or, argent, bronze et ivoire, a été en partie fondu par eux, en partie dispersé parmi les musées d'Europe et d'Amérique, mais la majeure partie est venue enrichir les collections du Musée de Téhéran. De celle-ci, seuls les objets les plus représentatifs ont été publiés. Or, l'étude de toutes les pièces connues, et en particulier celles de Téhéran, amène à la conclusion que la trouvaille de Ziwiyé n'a pas fait connaître un trésor ou une cachette, mais un ensemble qui constituait le mobilier funéraire d'une tombe princière scythe de la seconde moitié du VIIe siècle avant J.-C. Le mort aurait été inhumé suivant les cérémonies et les traditions scythes qu'a décrites Hérodote à propos des rois scythes de la Russie du sud, région où, au début du VIe siècle avant J.-C., furent refoulés les Scythes de l'Iran.

Le corps était placé dans un sarcophage en bronze dont le marli gravé représentait une procession de tributaires. Plusieurs pectoraux en or sont ornés de suites d'animaux composites et l'usage de ces plaques dénote l'influence des traditions urartiennes. Un très grand nombre de bractées en or, d'une grande variété de motifs, indique qu'une imposante garde-robe accompagnait le mort. Des torques, des bracelets et des bagues, en or ou en argent, des colliers destinés aux femmes, permettent d'admettre que les femmes ou les concubines sacrifiées devaient suivre leur mari dans sa dernière demeure, de même que les gens de son entourage et les gardes dont les simples armes en fer tranchent sur celles en or et en argent du seigneur.

La tombe, à en juger d'après plusieurs débris d'or, contenait des vases, dont un chaudron (disparu) qui était décoré de deux protomes de lions et de deux de griffons, de pur style urartien. La vaisselle des gardes était représentée par une poterie d'une facture très fine, en partie couverte de peinture lie-de-vin. Près du mort étaient placés des meubles ou des coffrets richement décorés de plaques d'ivoire sculpté, gravé ou incrusté de pâte de verre de couleurs différentes.

Plusieurs clochettes en bronze indiquent que les chevaux du prince le suivirent dans la tombe. Ceci se confirme par un grand choix d'éléments de harnachement (chanfrein, phalères, mors) en argent et en bronze. Une tête de cheval en bronze décorait le bout du timon d'un char qui devait aussi se trouver dans le tombeau. Par la variété des courants artistiques, ce mobilier funéraire illustre les contacts que les Scythes avaient avec divers pays et divers peuples d'Asie Occidentale, lors de la courte période de leur domination sur l'Iran occidental. On se trouve en présence d'un art actif dans la création aussi bien que dans l'assimilation des influences étrangères. Ces monuments figurés ont apporté, sinon des preuves, du moins diverses vraisemblances instructives.

Soulignons d'abord un fait important: le véritable style scythe s'ébauche tout en s'alliant bien souvent, sur le même objet, aux formules étrangères. On reconnaît dans le cerf couché, dans le félin dressé, dans une bête enroulée ou dans la tête d'oiseau «tout en bec» cette iconographie si particulière de l'art scythe de la Russie du sud, et qui sera aussi celle des nomades des grands espaces eurasiques. Les objets ornés de ces sujets si particuliers, ignorés en Asie Occidentale avant l'arrivée des Scythes, étaient conçus et réalisés sur l'ordre du prince dans des ateliers qui travaillaient pour lui. Il est moins aisé de reconnaître la nationalité des artistes qui les ont produits: étaient-ce des Mannéens, habiles artisans recherchés par les rois assyriens qui les faisaient travailler dans leurs capitales; étaient-ce déjà les Mèdes, dont l'art consommé d'orfèvres est loué par Darius dans sa Charte du Palais de Suse, ou, peut-être des Urartiens? A l'analyse de certaines pièces, telles que les pectoraux, on acquiert la quasi certitude que l'artiste devait travailler un sujet courant en Asie Occidentale mais qu'il ne connaissait pas, qui lui était étranger et qu'il ne comprenait pas. Ceci se manifeste tantôt dans son arrangement de l'ensemble ou dans la disposition des figurants, et, en particulier, dans la façon de traiter différemment les figures humaines et d'y introduire certaines particularités, certains traits caractérisant l'art archaïque grec. Cela poserait la question de la participation, déjà à cette époque, d'artistes venus des villes grecques de l'Asie Mineure. Leur présence au service d'un prince scythe peut susciter des doutes et il nous serait impossible de l'affirmer. Rappelons, toutefois, que deux ou trois décades plus tard que la date supposée de la tombe de Ziwiyé, les Grecs travaillent déjà pour les Scythes de la Russie du sud.

Les objets de facture assyrienne se reconnaissent à Ziwiyé parmi les éléments de harnachement, dans certaines armes et surtout dans un ensemble d'ivoires sculptés avec des chasses pour sujet. Ceux de l'art urartien, ou faits suivant les traditions urartiennes, semblent être les plus nombreux; ceci pourrait s'expliquer, d'après les savants soviétiques, par le long contact que les Scythes eurent avec cette grande puissance, même avant d'avoir atteint l'Iran occidental. Enfin, les rapports entre l'art de Ziwiyé et celui du Luristan ne peuvent être niés, ne serait-ce que du fait de la prédilection des deux arts pour la forme de la «jonction zoomorphe».

Cette période de l'histoire de l'Iran, qui correspond aux premiers siècles du Ier millénaire avant J.-C., et précède le réveil national mède et la formation de leur grand royaume, se passe, à la lumière de nos connaissances encore imparfaites de l'époque, sous le signe de la symbiose médo-scytho-cimmérienne, ce que les arts de ces trois peuples semblent enseigner et que leur parenté est susceptible d'expliquer. Dans ce creuset a dû se former l'art aulique mède que nous ignorons encore mais qui, inévitablement, devait s'affirmer dans l'art des Perses-achéménides, auquel ces composants ne paraissent pas avoir été étrangers.

III. NOMADS AND LURISTAN BRONZES:
Methods prosposed for a Classification of the bronzes

by

EDITH PORADA

In the brilliant panorama of the movements of peoples around and into Iran in the early centuries of the first millennium B.C. presented in the foregoing paper by Roman Ghirshman, he stated his belief that the influx from the North of Cimmerians, warlike horsemen and horse breeders, into the Zagros mountains in the eighth century B.C. caused the extraordinary output of metalwork discovered in graves of the Iranian province of Luristan in 1929. In the past thirty years thousands of Luristan bronzes have entered the public and private collections of Europe and Asia, obtained from uncontrolled diggings and distributed through dealers. Only one scientific expedition, led by Erich Schmidt, worked in this territory in 1937, excavating a sanctuary at Surkh Dum and eight graves in the valley of the Badaver River.[1]) Except for a brief preliminary report, however, the results of this expedition are unpublished. The dating of this material and the identification of the people who produced it are, therefore, still subjects of lively discussion among scholars.

In contrast to Ghirshman's late dating of the bronzes[2]) other scholars, notably C. F. A. Schaeffer,[3]) have maintained that there was a connection between the makers of Luristan bronzes and the Kassites who ruled Babylonia from about 1650–1150 B.C. and who entered Babylonia from the western mountains of Iran.[4]) Schaeffer dated the bulk of the bronzes to about 1500–1200 B.C., though he placed the beginning of metalworking in the region considerably earlier. A middle position was taken by A. Godard[5]) who dated the bronzes as post-Kassite, that is, after

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[1]) Erich Schmidt, *The Second Holmes Expedition to Luristan*, Bulletin of the American Institute for Iranian Art and Archaeology V, 1938, pp. 205–216. The first expedition had explored deposits, mainly prehistoric, in the Rumishkan valley, *cf.* A. U. Pope, *A Note on Some Pottery from the Holmes Luristan Expedition*, Bulletin of the American Institute for Persian Art and Archaeology IV, 1936, pp. 120–125.

[2]) In addition to his statements in the preceding paper, he expressed a similar opinion in *Iran*, Penguin Books, 1954, p. 106 and in the French version, published in 1951, p. 89, as well as in Bibliotheca Orientalis XV, 1958, p. 259, I.

[3]) *Stratigraphie Comparée . . .*, Oxford, 1948, pp. 477–495.

[4]) For a summary of the early history of the Kassites, cf. H. Schmökel, *Geschichte des alten Vorderasien* (Handbuch der Orientalistik II, 3), Leiden, 1957, pp. 171–172.

[5]) Most recent statements in the introduction to *Bronzes du Lurestan . . .* coll. E. Graeffe, La Haye, n.d. I owe to Mr. G. Goossens the opportunity of comparing the dates published in the catalogue with Mr. Godard's corrected dates which give a range between 1150–700 B.C. to most of the objects.

1150 B.C. mainly because no Luristan bronzes were found in Kassite levels in Babylonia. He furthermore suggested that Hittite metalworkers, leaving their homeland under the menace of barbarian invasions, had sparked the output of bronzes in the Zagros mountains where Kassite horse traders had achieved considerable wealth. The end of the art of Luristan came, according to Godard, in its absorption by Achaemenian art (though he usually indicates about 700 B.C. as the lower limit for the date of the majority of the bronzes).

All three scholars contribute significantly to the problem of chronology and classification of the material,[6]) the diversified character of which was aptly described by R. Ghirshman.[7]) While ultimate solutions concerning the chronology of the bronzes and the identification of their makers must be validated by stratigraphic excavations, certain additional analytical methods may, nevertheless, be applied to the material, which should bring such solutions closer than they seem at present. These methods are: (1) the establishment of a typological classification (based upon specific criteria such as shape, use, or method of manufacture); (2) a careful analysis of the stylistic features of each type in the classification; and (3) the systematic comparison of these stylistic features with other material to establish a relative chronology for the types. Although these methods have been previously employed, they may yield more positive results if they are applied to the largest possible body of material and if they are used with the utmost precision.

An example of the results which can be obtained by the first of these methods is the chronological framework for the rim- and lappet-flanged daggers established in the following article by R. H. Dyson, Jr. (Pls. IX–XI). This type of dagger, which took its inception in Syria, according to Schaeffer in the earlier half of the fourteenth century B.C.,[8]) occurred in Babylonia in the twelfth century B.C., and continued in use in Azerbaijan, Luristan and Assyria in the ninth century B.C. and probably later, to judge by the evidence of a dagger of this type found in the palace of the Assyrian king Esarhaddon (680–669 B.C.).[9]) The existence among the Luristan bronzes of daggers inscribed with the names of Babylonian kings of the twelfth

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[6]) Only the three most prominent scholars with different viewpoints at present working in the field have been mentioned here. For a comprehensive bibliography of the literature on Luristan bronzes cf. L. Vanden Berghe, *Archéologie de l'Irān Ancien*, Leiden, 1959, pp. 175–187.

[7]) *Iran*, pp. 104–105.

[8]) *Stratigraphie*, p. 481. Related daggers from a tomb at Madeba in Jordan, however (Palestine Expl. Fund, Annual VI, 1953, Pl. IV, 162, 163) were tentatively dated by B. S. J. Isserlin 1200–1160 B.C. (*op. cit.* p. 36).

[9]) A. H. Layard, *The Monuments of Nineveh*, 1849, Pl. 96, 10. Helene J. Kantor pointed to this dagger from Nimrud as supporting a late date for the Luristan dagger in the Oriental Institute Museum (Journal of Near Eastern Studies VI, 1947, p. 258; the dagger is reproduced *l.c.* Pl. IX). The more attenuated grip of the Luristan dagger, however, may militate against identifying its date too closely with that of the dagger from Nimrud.

century B.C. has long been known.[10]) The interpretation of this evidence, however, varies from Ghirshman's theory that these daggers were loot from Babylonian temples pillaged by Cimmerian mercenaries in the time of the Assyrian king Sennacherib (704–681 B.C.) (see p. 4) to the suggestion that they were received as presents shortly after they had been made.[11]) This writer inclines to the latter interpretation and suggests that the remarkable resurgence of Babylonian military power after a decline at the end of the Kassite period was achieved with the help of effective auxiliaries from the Zagros mountains, to whose leaders the present

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[10]) The list of inscribed daggers given by S. Langdon in A.U. Pope, *A Survey of Persian Art*, I (text) and IV (plates), Oxford University Press, 1938 (henceforth *Survey*): I, pp. 279–284 is now supplemented and corrected by two further articles: W. Nagel, *Die Königsdolche der Zweiten Dynastie von Isin*, Archiv für Orientforschung XIX, 1959–60, pp. 95–104, and G. Dossin, *Bronzes inscrits du Luristan de la Collection Foroughi*, Iranica Antiqua II, 1962, pp. 149–164.

Although it was previously known that inscribed daggers dated from the reigns of several kings of the Isin II dynasty – notably Ninurta-nādin-shumi (1130–1125 B.C.), Nabû-kudurri-uṣur I (1124–1103 B.C.), Marduk-nādin-aḫḫe (1098–1081 B.C.), Marduk-shāpik-zēri (1080–1068 B.C.), and Adad-apla-iddina (1067–1046 B.C.) – Dossin's article now reveals that the practice of inscribing the type of dagger here discussed dates back to at least the reign of one of the late Kassite kings, Adad-shuma-uṣur (1218–1189 B.C.). The exact purport of the dagger inscription is still uncertain, but it seems to me that the inscription marks the dagger as property of the king which could be given out as a special favor.

On occasion, however, these daggers were used for dedicatory purposes, at least by private individuals. Nagel *op. cit.* p. 96, publishes a dagger bearing an inscription of a certain Eriba-Nusku, a scribe, which contains an admonition that "whoever loves Marduk should not remove this dagger". Obviously the weapon had been set up as a dedication to Marduk, presumably in a temple. Several weapons in the Foroughi Collection also bear inscriptions of similar content, notably Dossin, *op. cit.* no. 7.

A further study which will treat both inscribed and uninscribed Luristan bronze daggers is currently being prepared for publication by T. C. Young, Jr., of the Royal Ontario Museum and J. A. Brinkman of the Oriental Institute, Chicago, where full bibliographical materials may eventually be found. I owe this note to J. A. Brinkman who used as a basis for the chronology of the kings of the Isin II dynasty the chapter by M. B. Rowton on the chronology of "Ancient Western Asia" in the *Cambridge Ancient History*, Vol. I, Chapter VI (1962), pp. 23 ff.

[11]) For an enumeration of the different possibilities concerning the origin of these inscribed daggers, cf. H. Frankfort, *The Art and Architecture of the Ancient Orient*, Pelican History of Art, 1954, pp. 263–264 (note 28). *Cf.* also F. Thureau-Dangin in Revue d'Assyriologie XXIX, 1932, p. 30 (quoted by G. Contenau) who stated that if these weapons were really found in tombs, they could only have been gifts presented either by the king or in exceptional cases by an officer (see the dagger inscribed with the name of Shamash-killanni, officer of the king, British Museum Quarterly VII, 1932–33, pl. XVIII, above). These gifts would have been given to mercenaries either after an outstanding military feat or, more likely, at the moment of their separation from the army in compensation for services rendered.

group of weapons was given as reward.[12]) The problem of whether under these circumstances the daggers could still have been made in Luristan is not insoluble since the inscriptions were engraved subsequent to the manufacture of the weapons and might, therefore, have been applied to daggers obtained from the same region as the auxiliaries. Even if these daggers originated in Babylonia, however, they set the pattern in Luristan for a large number of local imitations. The significance of Dyson's evidence lies in the establishment of a continuous tradition of this type of "Luristan" bronze from the twelfth to the ninth and possibly to the seventh century B.C. The slight changes observable in this type of object, however, give little indication of significant stylistic development in the centuries during which this dagger form was in use.

The only medium in which stylistic changes in Western Asiatic art are subtly reflected is glyptic art, especially cylinder seals, which in turn reflect the taste of their makers and buyers in other art forms. For example, the abstraction of the linear and drilled styles in Assyrian cylinder seals of the tenth to early eighth centuries B.C., following upon the modeled naturalism of the Middle Assyrian period from the fourteenth to the eleventh centuries B.C., is matched by the linear stylization in the reliefs of Ashurnasirpal II (883–859 B.C.), while a return to naturalism in the reliefs of Sargon (721–705 B.C.) and Sennacherib (704–681 B.C.) is paralleled by a similar development in seal carving.[13])

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[12]) This was also the view of R. Dussaud in *Survey*, Text vol. I, p. 275. Daggers given as reward for valor are documented specifically in Egypt. For an early survey of civil and military decorations in Egypt, cf. K. Sethe, *Ägyptische Ordensauszeichnungen*, Zeitschrift für ägyptische Sprache (henceforth ZÄ) XLVIII, 1910, p. 143, also Bulletin of the Metropolitan Museum of Art X, 1915, pp. 119–120; cf. a more recent discussion by H. von Deines, *Das Gold der Tapferkeit, eine militärische Auszeichnung oder eine Belohnung?*, ZÄ LXXIX, 1954, pp. 83–86. I owe this reference to Dr. Walter Federn.

A pair of wooden cheek plates from the handle of a dagger, carved with the title of Thutmose I was found in a pit tomb of a soldier who had been given the dagger by his king, perhaps as a reward for valor (W. C. Hayes, *The Scepter of Egypt*, part II, The Metropolitan Museum of Art 1959, p. 77). Egyptian military decorations also included flies of gold. These seem to have been considered symbols of energy and perseverance also in a military sense, *cf.* W. von Bissing, *Die tapfere Fliege*, Prähistorische Zeitschrift XXXIV–V, 1949–50, p. 217 (This reference is again owed to Dr. Federn). A similar thought was expressed in Assyria by the name of a certain type of siege engine called "great flies of the wall" (D. D. Luckenbill, *The Annals of Sennacherib*, Oriental Institute Publications II, 1924, p. 62: 79. This meaning of flies must account for the engraving of a row of flies on a Luristan dagger, Godard, *Bronzes . . . Graeffe*, Pl. 18, cat. 44.

In Assyria, Sennacherib rewarded the men who accomplished his canal for the water supply of Nineveh with gold daggers and rings (Luckenbill, o.c. p. 82: 34) and Ashurbanipal gave to Necho of Sais a dagger inscribed with his name (*Ancient Near Eastern Texts . . .* ed. by J. B. Pritchard, Princeton 1950, henceforth ANET, p. 295).

[13]) For a detailed discussion of the styles of Neo-Assyrian and Neo-Babylonian cylinder seals, cf. E. Porada in *Corpus of Ancient Near Eastern Seals . . .* Bollingen Series XIV, 1948, (henceforth *Corpus*), pp. 71–96, for summarizing remarks on the style of the reliefs, cf. E.P., *An Assyrian Bronze Disc*, Bulletin of the Museum of Fine Arts, Boston, XLVIII, 1950, p. 2.

Cylinder and other seal designs will therefore be used in the following paragraphs to demonstrate the results which can be obtained from a combination of the second and third methods outlined above, namely from a careful analysis of stylistic features and comparison with other dated material. Subsequently, the results gained in a study of the seals will be used to suggest the dates of other works of art from Luristan.

The example chosen for discussion (pl. I, 1) is one of more than two hundred cylinder and stamp seals found by Erich Schmidt in the temple of Surkh Dum.[14]) It shows a small figure of an archer kneeling on one knee, shooting at one of two large goats which stand on their hind legs on either side of a tall tree. Below the archer is a bird in flight with spread wings, above him is a star or sun design the rays of which are indicated by twelve radial notches. The engraving is linear with the hollows of the more substantial areas, such as the animal bodies, deeply gouged out of the seal. No stratigraphic evidence concerning the cylinder is published, and its present dating depends on deductions made from stylistic comparisons. In view of a general tendency to date material from Luristan in the ninth to seventh centuries B.C., comparison must be made with Neo-Assyrian cylinder seals. Indeed, the multi-rayed design of Pl. I, 1 resembles stars on Assyrian linear-style cylinders of the ninth to eighth centuries B.C., but in the Assyrian examples the star usually has only eight points.[15]) This difference may be one indication of an early date for the design of Pl. I, 1, before the center-point eight-rayed star had been developed in Assyria and spread to that country's periphery with the general acceptance of the Assyrian linear style. Independence of Assyrian designs, perhaps to be explained by an earlier origin of the cylinder (Pl. I, 1), is obvious also in the rendering of the animals' bodies without the patterning usual in Assyrian linear-style cylin-

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[14]) Schmidt, *l.c.* p. 210, describes the cylinders discovered by him in the sanctuary at Surkh Dum as follows: "More than two hundred cylinder seals and quite a number of stamp seals were found in the temple. Some cylinders bear Kassite cuneiform inscriptions older by several centuries than the rest of the finds. Some are engraved with scenes such as appear also on Assyrian cylinders, others show animal patterns presumably native to the homeland of the ancient people of Surkh Dum."

[15]) E.g. A. Moortgat, *Vorderasiatische Rollsiegel* . . . Berlin, 1940, Nos. 642, 654, 655, 672, 681. All these examples were excavated in Ashur, but, unfortunately, none was discovered in unequivocal context before 800 B.C. Yet No. 683, a cursorily executed cylinder seal which has a somewhat variant rendering of a linear-style subject and which also lacks the center point in a six- instead of an eight-rayed design, was dated by Moortgat in the eighth century B.C. on the basis of its finding place. Perhaps some disintegration set in after about 800 B.C.

Designs with as many as twenty-six rays appear on a probably Middle Assyrian ivory pyxis of the thirteenth to twelfth centuries B.C. (*c.f.* Arndt Haller, *Die Gräber und Grüfte von Assur*, 65. Wissenschaftliche Veröffentlichung der deutschen Orient-Gesellschaft, 1954, Tafel 29 c, Abb. 161, p. 135; text concerning the date of the tomb in which the pyxis was found, p. 124, left column, p. 125, left column). They support the contention here voiced that in Assyrian art many-rayed designs belong to the period before the ninth century B.C.

ders,[16]) and in the rendering of the tree, which is not the Assyrian type of palmette tree but rather suggests a willow tree or some coniferous species like juniper, due to the series of small notches which line the branches.

In contrast to the tenuous connections of the cylinder, Pl. I, 1 with Assyrian cylinders of the ninth to eighth centuries B.C., found only in the multi-rayed design, startling similarities to the design of a thirteenth century Elamite cylinder from Tchoga Zanbil[17]) can be observed. Subject and composition are almost identical and the difference between the two seal designs mainly concerns the manner of engraving, which is linear in the Luristan cylinder (Pl. I, 1) and more rounded in the cylinder from Tchoga Zanbil (Text-fig. 1). Furthermore, the tree in Pl. I, 1 is larger and more prominent and we find here the multi-rayed design instead of the numerous linear stars distributed in the field of the Tchoga Zanbil cylinder. Also the slender bird with spread wings of Pl. I, 1 is not found in earlier Elamite cylinders. If the resemblances and differences noted among the seals here discussed are used to suggest a date for the Luristan cylinder (Pl. I, 1), the latter may be placed in the tenth or ninth century B.C. after the thirteenth century Elamite example and before the ninth to eighth century Assyrian cylinders. Such a date is supported by the correspondence of the tall height and the multi-rayed design of the cylinder to a cylinder of local style discovered in the Grey Ware Stratum of Hasanlu of the ninth century B.C.[18])

An interesting feature of both the Elamite and the Luristan cylinders is the constant proportion of archer and goats. The comparatively gigantic size of the goats, perhaps purposefully contrasted with that of the human huntsman, suggests that they are supernatural animals, conceivably representative of a deity. If the tree appearing between the goats is indeed a juniper tree, one is tempted to associate

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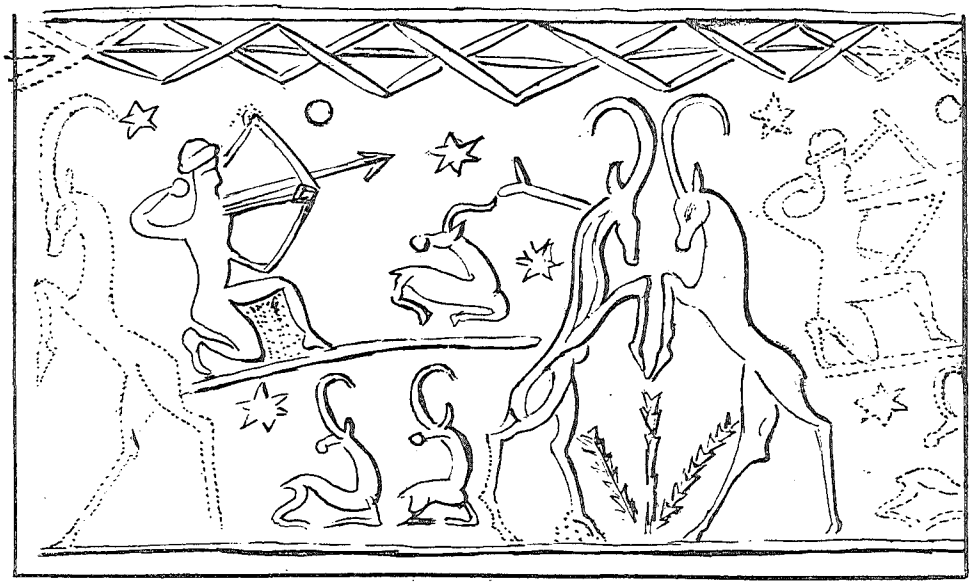
[16]) For Assyrian examples of cylinders with rampant goats flanking a tree, *cf. Corpus* Nos. 637, 638. A cylinder with rampant goats and tree found at Nimrud (Iraq XVII, 1955, Pl. XII, 1, ND 3582) seems to have been out of context, *cf.* the remarks by B. Parker, *l.c.* p. 99, who would, however, date the seal in the end of the eighth century B.C., which seems late to me. The motif of goats with a tree occurs in one published example of the decoration of robes in the reliefs of Ashurnasirpal II (883–859 B.C.), E. A. Wallis Budge, *Assyrian Sculptures in the British Museum, Reign of Ashurnasirpal* . . . London, 1914, Pl. LII, 4, second panel right. (In the pattern of the robes, however, kneeling goats were favored because of the narrowness of the bands of decoration). The occurrence of the motif in Ashurnasirpal's reliefs and its linear execution serves to date cylinder seals with these features in the ninth century B.C., though some may have still been made in the eighth.

[17]) Professor Roman Ghirshman generously invited me to publish these cylinder seals. This study is in preparation. The thirteenth century date cited for text-figure 1 is based on the assumption that the majority of the cylinders, the style of which is shared by the cylinder in question, were deposited during or shortly after the time of the builder of the sanctuary and of the Ziggurat, king Untash-Gal (1234–1227 B.C.). Only a few cylinders, not found with the main deposit, show different styles and probably derive from later periods.

[18]) Archaeology, Summer 1960, Vol. XIII, No. 2, p. 128.



Text-fig. 1

with our representations some ancient concepts concerning a complex of a goddess of fertility and of the hunt, mountain goats (also ibexes and mountain sheep), and a juniper tree surviving among some mountain peoples of central Kashmir.[19]) One cannot deny the tremendous distance in time and space which separates the cylinder seal representations from the people in the Haramosh valley who still place juniper branches in the stone altar of their goddess, a goddess who is the protectress of women, of all wild animals, and of the hunters – and whose altar, situated near the highest summer village in this mountain valley, was still adorned a few years ago with the horns of mountain goat and ibex. Yet it seems conceivable, as suggested by Jettmar (see note 19), that in this specially favored area of Kashmir we note the survival of one of those mountain religions which once existed with many variations between the Alps and the Himalaya mountains. The importance of the motif of goats with a tree in the Iranian cylinders here discussed may be due to the existence in the religion of Elam and Luristan of a component related to the religious complex surviving today in remote localities of Kashmir and similarly secluded spots.

The discussion of the cylinder seal from Surkh Dum (Pl. I, 1) and the material related to it has yielded a tentative date in the tenth or ninth century for the seal, an indication of lasting Elamite influence in the works of art produced in Luristan,

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[19]) Karl Jettmar, *Völkerkundliche Forschung im Haramoshgebiet (Gilgit-Agency)*, Zeitschrift für Ethnologie, 83, 1958, pp. 252–256.

and suggestions for the religious background of the motif of goats with a tree; this motif underlies in my opinion the motif of confronted goats frequent among the bronzes of Luristan. These points will be referred to in later parts of this paper where they will also serve to refute the theory that the Luristan bronzes owed their existence to the influence of northern Nomads.

We now turn to a different type of seal, namely the bronze seal-rings, from Luristan. These are related by their material to the other bronze objects from the region and will permit the formation of typological and stylistic groups that can subsequently be paralleled with groups found among other Luristan bronzes.

There are three types of seal rings: sheet rings, Pl. I, 2–4, lobed rings, Pl. II, 1, 2, and rings with a bezel, Pl. II, 3 and 4. The sheet rings are made from a thick engraved sheet of bronze, wider in front than in the back, where the narrow ends are bent together (Pl. I, 4b). Rings of similar shape but of gold, with the ends solidly fused, were used in Hittite Anatolia[20]) and in the kingdoms of Carchemish and Ugarit in North Syria[21]) in the fourteenth and thirteenth centuries B.C. They are among the first seal-rings in Western Asia and probably inspired those of Luristan, since they do not seem to have been popular in Kassite Babylonia, where only one such seal-ring has been found in excavations.[22]) The date of those from Luristan, of which one was found at Surkh Dum[23]) (not reproduced here), cannot be far removed from the time of the Babylonian king Marduk-nādin-aḫḫē (± 1100 B.C.), as the latter appears on a boundary stone with a polos decorated with the same motif seen in Pl. I, 2, a sacred tree with a crown composed of conical forms, perhaps date-spathes, flanked by two confronted walking bulls.[24]) Comparison of the tree motif with that on the robe of a Babylonian king of the ninth century B.C.[25]) shows that the design had become squatter by that time and that stem and crown were no longer clearly separated. In the Babylonian design of Marduk-nādin-aḫḫē, however, the bulls do not have the strongly arched neck, the massive forward curving

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[20]) *Cf.* H. G. Güterbock, *Siegel aus Boğazköy* II, Archiv für Orientforschung, Beiheft 7, Berlin, 1942, p. 2 *s.v.* Siegelringe.

[21]) C. F. A. Schaeffer, *Ugaritica* III, Paris, 1956, pp. 41–43, Figs. 54–57; p. 44, Fig. 61; p. 45, Fig. 62; p. 56, Figs. 78–79; pp. 78–80, Figs. 100–102; pp. 81, 83–84, Figs. 103–105; pp. 85–86, Figs. 106–107. Later evidence for use of such rings comes from period I at Hama (c. 1200–1075 B.C.) in P. J. Riis, *Hama . . ., Les cimetières à crémation*, Copenhagen, 1948, pp. 127–128, and p. 202 for the absolute dates of the periods of the Hama citadel and tombs.

[22]) A ring made of a strong sheet of gold was found in a Kassite tomb, O. Reuther, *Die Innenstadt von Babylon (Merkes)*, 47. Wissenschaftliche Veröffentlichung der deutschen Orient-Gesellschaft, 1926, Tafel 47, Fig. 15: 25, text, p. 167.

[23]) Now in the Metropolitan Museum of Art, to be published by E. F. Schmidt.

[24]) L. W. King, *Babylonian Boundary Stones*, British Museum, 1912, Pl. LIV.

[25]) On the boundary stone of Nabû-mukîn-apli, King, *op. cit.* Pl. LXXIV.

breast and the long body set on thin, graceful legs which characterize the ring in Pl. I, 2 and which may be distinctive of a non-Babylonian, Iranian style. In the seal-rings of both Pl. I, 2 and 3, the defective inscription[26]) may be another indication for their non-Babylonian origin. Even more definitely non-Babylonian is a seal-ring (Pl. I, 4 a, b) on which the motifs seen in Pl. I, Figs. 2 and 3 are combined and rendered almost exclusively by work with the drill, which creates a geometricizing style of globe-like forms. The resulting effect, however, could not have been too distasteful to the inhabitants of Iran. On the contrary, the drilled, globular style of the earlier Mitannian age was widely distributed, as shown by the finds from Tepe Giyan[27]) (including the seal in Pl. II, 5 from the Herzfeld Collection, acquired at or near that site) and finds from the Persian Talyche.[28]) Examples of the Mitannian technique were also present at Surkh Dum,[29]) and many of the 13th century Elamite cylinders from Tchoga Zanbil show a cursory approximation of the more precisely applied drilled Mitannian manner.

No gradual transition can as yet be discerned from the sheet rings to those of the second type, here called "lobed rings". This type (Pl. II, 1) has the hoop greatly enlarged in front, diminishing in a sharp curve toward the back. These seal-rings were probably cast and only subsequently engraved but in so crude and so varied a manner that they could not have been the products of professional seal cutters. Nevertheless, the horned animal of Pl. II, 1 can be compared in its general outlines to animals carved on a cylinder seal from Necropolis B at Sialk[30]) and to pottery designs from the same site.[31]) In all of these representations we find the long heavy body, widely spaced legs and exaggerated curve of the neck. Tentatively, the date of this ring, and probably of others similarly shaped, may be set in the period assigned by Ghirshman to the Necropolis B, c. 1000–800 B.C.

One example of a lobed ring (Pl. II, 2) is more delicately made than all the others. It has two confronted bulls whose forelegs are crossed in a compositional device somewhat reminiscent of Late Elamite seals, where animals are often shown crossed

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[26]) In an oral communication, A. Goetze suggested that the formula *dingir.mesh* found in the ring mentioned in note 23, stems from a prayer in which "the gods" are invoked. On the post-Kassite cylinder, H. Frankfort, *Cylinder Seals*, London, 1939, Pl. XXXIIa, the fuller formula *dingir.lú.mesh.* "the male gods" occurs. This is also quite common in Hittite texts. I owe this note to A. Goetze. The inscription *lú.mesh* in Fig. 2 seems to be a defective and senseless writing of the fuller formula.

[27]) G. Contenau et R. Ghirshman, *Fouilles du Tépé-Giyan*, Paris, 1935, Pl. 38, 1, 2, 4.

[28]) Good drawings in Schaeffer, *Stratigraphie*, p. 410, Fig. 30, 1–3; others in J. de Morgan, *Délégation en Perse, Mémoires* (henceforth *MDP*), VIII, 1905, p. 302, Fig. 568.

[29]) The lot of seals from Surkh Dum assigned to the University Museum, Philadelphia, contains only one very typical example, No. 1005; others are probably present in the lots not examined by me.

[30]) R. Ghirshman, *Fouilles de Sialk* II, Paris, 1939, Pl. XXX: 7.

[31]) *Op. cit.* Pl. X: 2.

and entwined.[32]) This comparison may give some indication of a late date for the ring of Pl. II, 2. Such a date is further supported by the triple globes in the sky, which recall textile patterns found on the robes of figures in late hammered objects ascribed to Luristan but probably of Elamite origin.[33]) Tentatively, this lobed seal-ring may, therefore, be placed after 800 B.C., the date given above for lobed rings in general. Its small size approximates that of the third type of seal-ring here to be discussed, rings with a bezel. In this type a flat sealing surface is created by broadening the hoop to a circle, oval, or pointed oval, or a disk with the sealing device engraved upon it is attached to the hoop. The first variety of which Pl. II, 4 is an example, made of bronze, was common among the less privileged population of the Achaemenian Empire, though stamp seals and crudely cut cylinders were also used by this group, while the court mainly used finely cut cylinder seals, according to Assyro-Babylonian and Elamite tradition – or Greek gems.[34])

A few bezel rings seem to precede the Achaemenian period.[35]) One of these (Pl. II, 3) was said by the dealer to have been found in Luristan, and certainly did come from Iran.[36]) Its rigid style is pre-Achaemenian and its motif, an antlered animal suckling its young, is very unusual. While the motif of a horned animal with its young had a long history in Babylonia,[37]) and was rendered in late Assyrian stamp seals,[38]) and Phoenician ivories,[39]) none of these renderings show a cervine

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[32]) Examples of entwined animals on cylinder seals with Elamite inscriptions are given by L. Delaporte, *Catalogue des cylindres orientaux . . . Musée du Louvre* II, 1923, Pl. 94: 7 (A.838) and several imprints on tablets from Persepolis (unpublished). A cylinder of probably similar origin but with simulated cuneiform inscription is in the Walters Art Gallery, Iraq VI, 1939, Pl. XIII, 109. The modeled style of the cylinder seals with this compositional device suggests that they were not made before the end of the eighth century B.C. The device as such, however, was used earlier in Iran as exemplified by the electrum goblet from North West Iran, now in the Louvre, Syria XXXV, 1958, Pl. XV and p. 177, Fig. 4. Entwined animals are also seen on a Neo-Babylonian cylinder seal of the king's messenger (Delaporte, *Catalogue . . . du Louvre* II, Pl. 90: 7 (A.709) and still appear on an early Achaemenian cylinder seal in the Walters Art Gallery (Iraq VI, 1939, Pl. XIII, 108).

[33]) *Cf.* especially the garment of the seated figure in W. D. Van Wijngaarden, *De Loeristan bronzen*, Oudheidkundige Mededelingen, Supplement op Nieuwe Reeks XXXV, 1954, Pl. I, 1.

[34]) *Cf.* E. F. Schmidt in *Persepolis* II, Oriental Institute Publications LXIX, 1957, p. 46, Col. II.

[35]) The earliest examples in western Asia are again found in Anatolia, *cf.* the reference given in note 20.

[36]) The seal was offered for sale together with other Persian antiquities, notably a piece of chased gold foil from Ziwiyeh.

[37]) *Cf.* E. D. Van Buren, *Symbols of the Gods*, Analecta Orientalia XXIII, 1945, *s.v.* Cow and Calf, pp. 36–39, the term *cervidé* used by Mrs. Van Buren, however, is erroneous for the reason given below in the text.

[38]) Three examples of the motif were found in Nimrud, one of them on an impression on a docket dated 666 B.C. (Iraq XVII, 1955, Pl. XXVI, 3, ND. 3464, the date of 108 B.C. given for the docket on p. 120 is a printer's error for 666 B.C.).

[39]) Especially those of Arslan Tash, F. Thureau-Dangin *et al.*, *Arslan-Tash*, Paris, 1931, Pls. XXXVII–XLII *passim*.

animal because in these species the females do not have antlers (except for the reindeer). Should one assume that the maker of this bezel seal-ring was unfamiliar with this basic fact of wildlife in his country, or does this design represent a reindeer and its young? If true, the latter alternative manifests connections with northern concepts and suggests Central Asiatic influence.[40]) This latter alternative is supported by the existence of a magnificent bronze cheekpiece with deer and young in the collection of Mohsene Foroughi discussed by Ghirshman. This local parallel proves that the motif on the bezel ring was current and not merely one uninformed seal cutter's error. The style of the cheek piece seems to transcend that of the Luristan bronzes in its naturalistic vigor but cannot be defined easily, though this writer would guess that its date should not be earlier than the seventh century B.C., and may be much later.

The three types of rings here discussed are each representative of a specific phase of the western Iranian development as it now emerges. The sheet rings indicate the absorption of foreign influences in the last two centuries of the second millennium B.C.: the Syro-Anatolian seal-ring form and Babylonian motifs. The lobed rings reflect the characteristic Iranian style between 1000 and 800 B.C., in which, perhaps toward the end of the period, a greater refinement can be observed. Finally, the bezel ring of Pl. II, 3 represents in its shape the phase transitional to the Achaemenian bezel rings while at the same time perhaps showing some Central Asiatic influence in its motif.

The phases established for the seal-rings may now be examined for their possible relevance to other style sequences among the Luristan bronzes. A survey of the principal groups represented in this material may precede the discussion of chronology.[41]) The bronzes fall into two main classes, cast and hammered objects. Except

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[40]) Such influence would be limited to the species represented; the motif of an animal suckling its young is not common among Central Asiatic designs. The motif occurs in Greece, however, as in a bronze of the geometric period in the Museum of Fine Arts in Boston (G. H. Chase, *Greek and Roman Antiquities*, Boston, 1950, p. 16, Fig. 15; also reproduced by B. Segal, *Greece and Luristan*, Bulletin of the Museum of Fine Arts, Boston, XLI, 1943, p. 74, Fig. 8, and a similar group, p. 75, Fig. 14). The similarity between the design on the Luristan seal ring and that of the Geometric bronze group extends to the small bird seated on the croup of the antlered animal. At present, the relationship between these two objects is too isolated to draw further conclusions from it.

Doubts as to the existence of a horned doe were refuted by Aelian in a statement kindly brought to my attention by Evelyn B. Harrison. Aelian quoted great writers like Sophocles, Euripides and Anacreon as witnesses for the existence of a hind with horns (*On the Characteristics of Animals*, II, Loeb Classical Library, 1959, pp. 152–155, Book VII, 39). *Cf.* the reference *ibid.* p. 153 to William Ridgeway, *The Early Age of Greece*, I, Cambridge, 1901, pp. 360–363, with impressive proof for the identification of the horned hind with the reindeer of North Asia and Europe.

[41]) The typology and following stylistic observations are based on ideas evolved in discussion with students in a seminar given at the Metropolitan Museum of Art in 1959 for which Mr. C. K. Wilkinson made available the Luristan collection of the Museum. The following students participated: Linda Bettmann, Emma Bunker, Gennardo Colombardo, Janet Hill, Ayako Imai, Annabelle Simon,

for a few chased and engraved vessels, the hammered objects seem, on the whole, to date from the latest period of Luristan bronzes and will not be treated here. The cast objects may be further subdivided according to their use into the following groups:

Weapons and Tools: daggers, axes, "halberds,"* picks, maces, hammers, and whetstones.
Horse gear: bits, cheekpieces, other pieces of harness.
"Standards," "Wands."
Jewelry: pins, anklets, bracelets, torques, pendants.
Human or animal figures.

Of these cast objects the so-called standards[42]) will be discussed more extensively, and "wands" and cheek pieces mentioned later. The standards can be divided into three major groups, in all of which the principal unit, consisting of animals, monsters and/or demons, rests on top of a bottle-shaped support. In the first group two erect confronted goats place their knees or hoofs against a ring, or confronted felines support such a ring on their raised paws. Through the ring passes a tube connecting the ring with the support (Pl. III, 1–3). In the second group the tube itself has been given human features but is rarely rendered alone; more frequently it is combined with felines (Pl. III, 4). In the third group (Pl. IV, 1) human and animal figures are fused and additional human heads appear at the waist of the monstrous forms and bird heads issue from shoulders and haunches. These three groups do not exhaust the variants of these standards, but have been selected because they seem to represent stylistic units, which, however, frequently overlap. The first group includes quite naturalistic renderings, as in the goat standard (Pl. III, 1), in which the curves of the body are stressed by slight modeling and the natural divisions are marked as between haunch and stomach. Among the standards with felines, Potratz points to one which is fairly naturalistic in its proportions[43]) and which he rightly puts at the beginning of this series of standards. In general, however, the standards with felines show greater stylization. The curve of

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Maurits Van Loon and the Assistant Curator of the Ancient Near Eastern Department, Prudence Oliver whose work on the standards has been extensively used in the present paper. Mrs. Natasha Rambova often added stimulating remarks and made her collection available to the group. Mrs. Hill is preparing a catalogue raisonné of the Heeramaneck Collection on which the group could draw throughout the seminar for additional material. Mrs. Bunker is preparing articles on pins and cheek pieces.

[42]) The first to suggest that these objects were standards was M. I. Rostovzeff in Ipek VII, 1931 p. 49. A useful survey of this type of object with its variants was given by H. A. Potratz, *Die Stangen-Aufsätze in der Luristankunst*, Jahrbuch für Kleinasiatische Forschung III, Ankara, 1955 pp. 19–42.

[43]) *Op. cit.* in previous note, pl. V, 11.

*) Quotation marks indicate that the term currently used for the object may not correspond to its original function.

the neck is unnaturally exaggerated and becomes a formal element balanced, though not completely, by the smaller curves of tail and legs. The body joining the animal's fore and hind parts, is a mere cone. In the most fully elaborated standards, of which Pl. III, 3 is an example, the formal tendencies completely govern the composition of the animal design, curve answers curve and a crescent-shaped wing is often added to accent the elegant arc of the neck, and in the goat standards, also of the horns. Such a development from more naturalistic, solid to more decorative, thinner, curving forms is here taken to have occurred over a period of time, not merely to denote differences of region or workshop.

In examining the technique by which these standards were made, attention may be given to the manner in which eyes and jaws of the felines in Pl. III, 2 are rendered. In the original wax model which preceded the bronze cast, they must have been formed of several rolls of wax. In the finished bronze object, they give the impression of raised coils. The effect obtained by this technique is a geometricizing one, reminiscent of the effect produced by the drilled technique of Mitannian cylinder seals of the type reproduced in Pl. II, 5. A further resemblance to Mitannian designs concerns the convention of showing confronted lions with paws stretched obliquely upward, resembling the position of the felines in Pl. II, 5. All this suggests a connection between the Mitannian glyptic style and the Luristan bronzes, but not a direct one as postulated by Ernst Herzfeld, who dated the bronzes between 1300 and 1000 B.C.[44]) or slightly later. Rather, the gap between the Mitannian stylistic prototypes of the fifteenth and fourteenth centuries B.C. and their reflections in the Luristan bronzes, which are later by several centuries, may be bridged by Elamite cylinders and their derivatives. These, as mentioned above, retained abstract globular forms at least until the thirteenth century B.C., when the drilled Mitannian style had largely been replaced by the modeled Middle Assyrian in the country of its origin.

Turning now to the goat standards in an effort to date them by comparison with works of glyptic art, we find that the rather naturalistic, solid modeling of the goats in the standard, (Pl. III, 1), makes one think of Kassite[45]) and Middle Assyrian[46]) examples. There exists a difference in posture, however, between the goats of the standards and those of the seals. While the latter leap toward the tree and their bodies are inclined toward the center of the design in a more or less oblique position, the animals of the bronze standards bend slightly outward, unless they stand upright; only the necks are strongly curved. This posture in the standards may be caused by the nature of the bronze object of which the goats are a part, but we should point to the fact that the posture of the goats on the cylinder seal

[44]) *Iran*, p. 165.

[45]) *E.g.* the seals assembled by T. Beran, *Die babylonische Glyptik der Kassitenzeit*, Archiv für Orientforschung XVIII, 1958, Figs. 22, 23, 24.

[46]) *E.g. Corpus* 597, 600.

from Surkh Dum (Pl. I, 1) is quite similar, although no functional reason could be cited for a deviation from Elamite, Middle Assyrian and Kassite prototypes. Of all the renderings of goats and a tree cited above, however, the one on the cylinder from Surkh Dum most accurately portrays the animal's posture when nibbling the leaves of a tree, as observed by this writer in Luristan.

The link between the seal design from Luristan and the bronze standards in the posture of the goats encourages us to suggest some relation in time between these objects. A difficulty arises in the modeling of standards like Pl. III, 1, here considered to have been the earliest of the series. We have no cylinder with goats from Luristan which we could equate with the modeled Middle Assyrian style of the twelfth and eleventh centuries B.C. The rendering of bulls in the seal-rings Pl. I, 2 and 3, however, suggests that such modeling was known in this period. It is conceivable, therefore, that the earliest goat standards should be associated in time with the rings, although the similarity in posture between the goats of the standards and those of the cylinder from Surkh Dum may also point to a later date. To such a later date in the tenth or ninth century B.C. certainly belong all those standards which have eliminated naturalistic modeling and proportions without having overly elaborated their outlines. Pl. III, 2 would be an example of the type which fits this category. The more elaborate goat or feline standards like Pl. III, 3, which are more sophisticated in outline than even a well-executed example of the style represented by the Surkh Dum cylinder could ever be, are probably later, belonging to the period shortly before or after 800 B.C.

Following these suggestions for the dating of the goat standards, some comment should be devoted to their iconography. In numerous Mitannian[47]) and Late Kassite cylinder seal designs referred to above for comparison with the goat standards, in the Elamite cylinder (Text Fig. 1), and in the Surkh Dum cylinder (Pl. I, 1), a tree or other plant appears between the goats. Could such a tree or plant have also been contained in the central tube of the goat standard? It could have been either a real plant or one made of perishable material,[48]) or one symbolized by the head of a pin.[49]) Support for the contention that a plant had been placed between the

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[47]) E. Porada, *Seal Impressions of Nuzi* (Annual of the American Schools of Oriental Research XXIV, 1947) *passim*. More rarely the goats flank a pole supporting wings (*op. cit.* Nos. 95, 332) or a star (No. 56).

[48]) Erich Schmidt in Bulletin of the American Institute for Iranian Art and Archaeology V, 1938, p. 214, stated that he found in the graves of the Badawar river valley receptacles for "wands" which unfortunately had been made of perishable material and consequently had disintegrated.

[49]) The bronze pin reproduced by A. Godard, *Les Bronzes du Luristan*, Ars Asiatica XVII, Paris, 1931, pl. XXXIII: 142, could have well served such a purpose, but also Nos. 139, 127, 120 and perhaps even 121 could have signified plant designs, in turn derived from the earlier lion club symbol as in Mitannian designs (cf. *Seal Impressions of Nuzi*, pp. 108–110). A possible connection between the Old Babylonian lion club standard and Luristan standards was considered by Rostovzeff, Ipek VII, 1931, p. 49, note 1. (Rostovzeff refers to the lion club symbol as Doppellöwenszepter).

goats may be given by the motif of the Luristan pin in Pl. V, 1, and by the tree between the goats on the rein-ring, Pl. VIII, 1, which I believe to be an Elamite bronze of the thirteenth century B.C. (see below, p. 30). The suggestion is therefore made here that the origin of the goat standards among the Luristan bronzes should be sought in forms developed earlier by Elamite artists from the age-old motif of seals and reliefs of horned animals, especially goats, flanking a tree,[50]) and not in the repertory of a new people coming into Luristan about 1000 B.C.[51])

Lions with a plant between them are far less frequent in earlier designs but do occur, Pl. II, 5,[52]) so that a similar origin for the feline standards is not excluded. From these simple standards with felines, Pl. III, 2, may have developed those of Pl. III, 4 and Pl. IV, 1 with a demonic figure between them.[53]) This development may have been influenced by the motifs of the large pins or wands (Pl. V, 2), which show a demonic creature with animals, frequently with magnificent mouflon horns. Probably these demons of the Luristan bronzes are not derivatives of the Babylonian "Gilgamesh" and the bull-man "Enkidu", as is often assumed,[54]) but present the pictorial resurgence of Iranian nature demons,[55]) perhaps of the type represented in prehistoric stamp seals (Pl. V, 3 and 4).[56]) It is possible that the resurgence of

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[50]) *E.g.* the oft-reproduced cylinder seal from Susa, Delaporte, *Catalogue . . . Louvre*, I, Pl. 24: 8 (S. 254).

[51]) Based on somewhat different arguments and using different dates, the conclusions here reached parallel those voiced by E. Herzfeld twenty years ago, *Iran in the Ancient East*, p. 166.

[52]) E.g. *Seal Impressions of Nuzi*, Nos. 118, 174, 176. In all three examples, however, the plant between the lions is very small. An example of lions flanking a large palmette tree is furnished by the carved alabaster vase found in the Middle Assyrian tomb to which reference was made for the ivory pyxis in Note 15. Haller, *Gräber und Grüfte von Assur*, Tafel 32 a, b, Abb. 164, p. 139.

[53]) H. A. Potratz, *op. cit.* p. 25, would explain the appearance of a human (or rather demonic) head above the forelegs of the felines as an internal development in this type of standard.

[54]) Godard, *Les Bronzes . . .* p. 80, refers to Gilgamesh, who dominates animals rearing up against him; M. Heydrich, *Bronzen aus Lurestan*, Rautenstrauch-Joest-Museum, Köln, 1955, refers to the myth of Gilgamesh and Enkidu for the motif in which a heroic or demonic figure appears between two animals or monsters; *etc.*

[55]) An Iranian origin for the demonic figure was proposed by Potratz, *op. cit.* pp. 32–33, who sees in it the manifestation of the Moon goddess. While some of the figures have breasts indicated (e.g. Godard, *Les Bronzes . . .*,Pl. XXXV: 151; XXXVII: 157?; XXXVIII: 159), and such an interpretation would agree with the religious concepts cited above (p. 15) in connection with goats and tree, it seems more prudent to refrain from a definite statement concerning the meaning of this figure.

[56]) These stamp seals belong to the glyptic groups preceding the output of cylinder seals in Iran which occurred in the late fourth millennium B.C. corresponding to the Protoliterate period in Mesopotamia. Pl. V, 3 is related to a seal found at Giyan at a depth of 13 meters (G. Contenau et R. Ghirshman, *Fouilles du Tépé-Giyan*, Paris, 1935, Pl. 38: 36; depth given on p. 42), at which depth the pottery of Giyan shows related angular designs of animal forms; *ibid.*, Pl. 47. (I was able to

such demons took its inception in Elamite works of art of the late second millennium B.C. since we find a demon with mouflon horns pictured on a stele of Untash-Gal (Text-fig. 2).

Wands like that in Pl. V, 2 manifest the coiled technique, noted above in the standards with felines, executed with minute precision. Particularly the fine herringbone pattern of the frame may be noted, which is reminiscent of the pattern on the golden grip of the dagger from Hasanlu (Pl. XI, 2) dated by Dyson in the ninth century B.C. The same distinctive pattern also occurs on an Elamite vessel of faience

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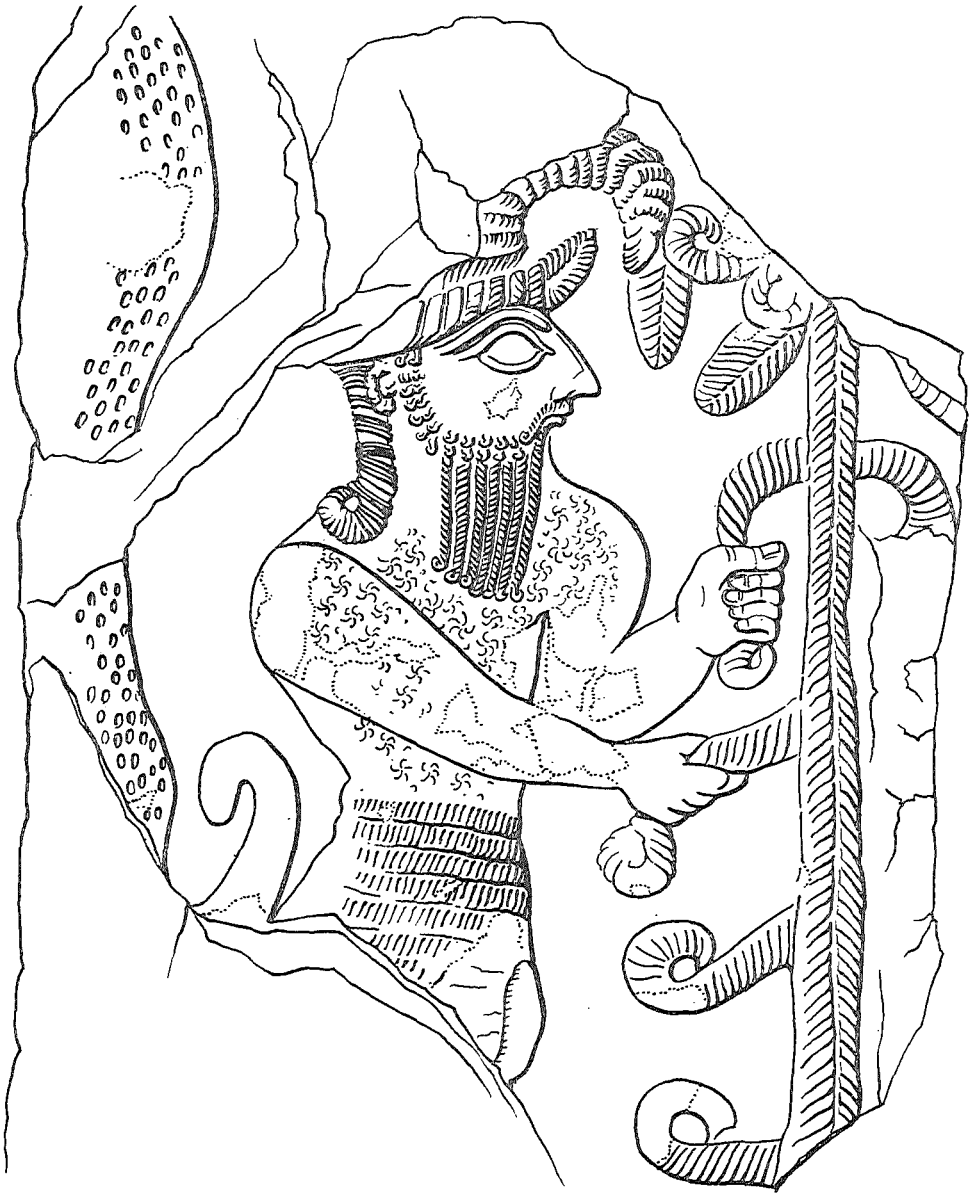
examine the photograph of the seal from Giyan through the courtesy of B. W. Buchanan). Related seals were also found in Susa in a level formerly called *Susa I*. Le Breton referred to this level as Susa A (Iraq XIX, 1957, p. 92, Fig. 8: 9, 11), which he considered to have been contemporary with the transition from Late Ubaid to the early Uruk period of Mesopotamia (see chart, *op. cit.* p. 124). Pl. V, 4 which is more naturalistically and delicately outlined with use of stippling to mark the surface of the demon's body, has a parallel in a stamp seal from Susa B (*op. cit.* p. 102, Fig. 15: 7) which in turn corresponds to the major part of the Uruk period of Mesopotamia (see again the chart, *ibid.*, p. 124).

In Pl. V, 3 the demon is associated with snakes, in Pl. V, 4 (which I take to represent the same type of demon although his horns are different), his feet are formed by the heads of horned animals and he seems to toss a horned animal up in the air while another falls or leaps under his raised arm. Dogs and snakes surround a related demon on a pectoral found at Tell Asmar in the Diyala region but probably of Iranian origin (Oriental Institute Communications 19, p. 29, Fig. 30) and perhaps of later, Protoliterate date. The precise significance of the demon cannot be ascertained but we may not be wrong in suggesting on the basis of the representations that he is a master and possibly a protector of the game which is symbolized by his horns. The importation of the pectoral to Tell Asmar may have corresponded to the spread of the concept of this demon associated with game which was not indigenous to southern Mesopotamia. Perhaps we have here the folklore component in the formation of the figure of the bull-man Enkidu in the Gilgamesh epic of historic times which was presupposed by Henri Frankfort (*Cylinder Seals*, London, 1939, p. 65). At the beginning of the epic Enkidu is described as having pastured with the gazelles and heaving torn up the traps set by the hunter for the creatures of the steppe (*ANET* p. 75). After his transformation into a civilized human being the Old Babylonian version describes Enkidu as catching wolves and lions and acting as a watchman for the cattlemen. Frankfort pointed out that these passages seemed to have been woven loosely into the poem but to correspond quite accurately with some of the renderings of the bull-man on Early Dynastic cylinder seals (*ibid.*).

If the role of the horned demon, protector of game, was taken over by the bull-man, protector of domesticated cattle in Early Dynastic iconography and correspondingly in myth, the disappearance of the demon from Iranian representations after the Protoliterate period (and also from northern Mesopotamia, where it had been known, cf. A. J. Tobler, *Excavations at Tepe Gawra* II, Philadelphia, 1950, Pl. CLXIII: 81, Pl. CLXIV: 94, 95) could easily be understood.

Hunting rituals and beliefs, however, have a long life as shown not only by the example from the Haramosh area cited above (note 19) but also by the survival of ancient rites in modern Central Europe. The disappearance of the moufflon or ibex-horned demon from the sophisticated cylinder seal designs of Susa which were made under Mesopotamian influence from the Early Dynastic period in the early third millennium to the late second millennium B.C., may not have meant oblivion by the hunters of the mountain regions of Iran.



Text-fig. 2

found at Susa.[57]) Another distinctive feature of these wands is the long-petaled rosette with small center, the shape of which corresponds to that found on the same vessel from Susa and, in a manner somewhat related, on pottery from Sialk.[58]) On the basis of such indications this writer tentatively suggests a date for the wands between 1000 and 800 B.C. One may also mention that wands of this type seem to be mentioned by Erich Schmidt as having been found at the bottom of the pile in the hoard at Surkh Dum.[59]) Even more tentative is the suggestion that the coiled technique used on wands and other objects may be similarly dated and that objects with a more limited or modified use of this technique, or without it entirely, are later.

Returning now to the standards and specifically to those like Pl. IV, 1, we find not only that the coiled technique has given way to different means of decoration, to the use of thinner, non-continuous rolls, of pellets aligned at regular intervals, here called beading, or to linear markings, but also that the above mentioned grafting of bird or griffin heads on other forms presents a departure from earlier Iranian or general Western Asiatic practices. Here indeed a new element seems to express itself, conceivably of Central Asiatic origin since birds' heads applied to other forms are a ubiquitous decorative feature in that region.[60])

These standards have a stylistic feature in common with hammered plaques and appliqués which also show human, or perhaps demonic, masks attached to or set

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[57]) Reproduced by R. D. Barnett in *The Aegean and the Near East*, Studies presented to Hetty Goldman, New York, 1956, Pl. XIX: 4; also in Compte Rendu . . . troisième rencontre assyriologique internationale, 1952, Leiden, 1954, Pl. III: 2.

[58]) Ghirshman, *Fouilles de Sialk* II, Paris, 1939, Pl. X: 3, XCI, A 18. In the painted examples the petal ends in a blob which seems to be the equivalent of the broad edge of the petal seen in the molded and carved renderings as on the vessel from Susa mentioned in note 57.

[59]) *Op. cit.* p. 210 and p. 213, Fig. 9.

[60]) For the use of birds' heads in Nomad art *cf.* Ellen Kohler on p. 61 below. The birds' heads used on the Luristan bronzes, however, are not the beak heads found in Nomad art and defined by T. I. Borovka in *Scythian Art*, 1928 (reprinted by Paragon, 1960), pp. 40 ff, but have crests reminiscent of earlier renderings of griffins, perhaps meant to represent cocks in the later Luristan bronzes. Except for a few early representations as on the Middle Assyrian pyxis mentioned in Note 15, cocks entered into the iconography of Western Asia in the eighth century B.C., cf. a cylinder seal from Nimrud (Iraq XVII, 1955, Pl. XI, 1, ND. 305 and comment on pp. 97–98). For other occurrences of cocks cf. my note in Iraq XXII, 1960, pp. 232–33. If, as seems likely, cocks were indeed meant by these birds, R. Ghirshman's suggestion to associate the elaborate standards with a mythological personage, connected in later texts with the judgment of the Dead, becomes very convincing (Bîchâpour vol. II, Paris 1956, pp. 125–126).

below the waist of a demonic figure. [61]) The late date of these bronze plaques supports a similarly late date for this group of standards.

If the criteria gained in the study of the standards are applied to some other group of objects such as the cheek pieces, we find that the most precise coiling appears in the simple three-dimensional heads of felines which terminate the crosspieces of bits ending in hands (Pl. VI, 1), probably the earliest type of Luristan bit.[62]) Precise coiling is also used in several places in the cheek piece in Pl. VI, 2, which this writer would date before the eighth century B.C., that is, before the bulk of cheek pieces which are not enclosed within a carefully worked frame. Among the animal or monster figures forming the latter type of cheek piece, only the feline heads preserve a measure of coiling, whereas the others are usually decorated by linear markings.[63]) Those pieces which may be the latest, like Pl. VII, 1, are modeled in large planes anticipating the Achaemenian style. Slightly earlier may be cheek pieces in the form of a horse, to judge by the relation of those seen on reliefs of Sennacherib (704–681 B.C.)[64]) and in the triumph of Ashurbanipal (669–627 B.C.) over the Elamites[65]) to the cheek piece in the Walters Art Gallery (Pl. VII, 2).[66])

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[61]) *E.g.* the quiver from Surkh Dum in the Metropolitan Museum of Art reproduced in Archaeology V, summer 1952, p. 99, fig. 4, 3rd register from bottom. The object was dated as late as the seventh or possibly the sixth century by H. J. Kantor, Journal of Near Eastern Studies VI, 1947, p. 258.

[62]) Cf. H.A. Potratz, *Die Pferdegebisse des zwischenstromländischen Raumes*, Archiv für Orientforschung XIV, 1941–44, p. 12. The type of linked bit illustrated in Pl. VI, 1 corresponds to the plain one found by R. Ghirshman at Tepe Giyan (cf. *op. cit.* Pl. 8, No. 3: 11, text p. 18) in a grave of Luristan type in which the head of the deceased rested on the bit.

[63]) E.g. Godard, *Bronzes*, Pls. XLI, 167; XLII, 170.

[64]) M. Wolff, *Ein historischer Wagentyp im Feldheer Sanheribs*, Archiv für Orientforschung XI, 1936–37, pp. 231–234, especially p. 233; *cf.* also the reference given by Potratz, "Pferdegebisse", p. 32, to the drawing in H. C. Rawlinson, *Five Great Monarchies* I², p. 408, a horse head with cheek piece in the form of a horse carved at the end of the chariot pole of Sennacherib's ceremonial chariot.

[65]) A. H. Layard, *A Second Series of the Monuments of Nineveh*, London, 1853, Pl. 49.

[66]) A different type of horse-shaped cheek piece was found in the well of the North West Palace at Nimrud (Illustrated London News, August 16, 1952, p. 254, Fig. 4). It is a flat electrum plaque in which details like the mane are carefully and naturalistically engraved. The latest date for that cheek piece would be the end of Sargon's reign in 705 B.C. (cf. the text *ibid.*, third column, and also Iraq XV, 1953, pp. 23–25). The precious material of this object suggests that the cheek piece was used for ceremonial purposes. This suggestion is supported by the use of horse-shaped cheek pieces on the richly caparisoned chariot horses of Ashurbanipal and Sennacherib and on the horse protomes of Sennacherib's ceremonial chariot (see references in notes 64 and 65). This evidence is important for the cheek pieces of Luristan because it suggests an analogous ceremonial use of the elaborately figured cheek pieces of this region. Moreover, a date in the late eighth century B.C. for the horse-shaped cheek piece from Nimrud would agree with the approximate date in the late eighth and earlier seventh century B.C. suggested here for those from Luristan.

Further examples of demonstrable chronological differences between Luristan bronzes would exceed the space allotted to this communication. The material here discussed, however, may suggest that at least four stylistic phases can be distinguished in some of the typological groups. The first phase, probably to be dated before and after 1000 B.C., is a formative one in which foreign influences are assimilated, as in goat standards like the one reproduced here as Pl. III, 1 and in sheet rings of the type seen in Pl. I, 2–4, which are probably earlier than the standards, dating about the twelfth or eleventh century B.C. The second phase, covering the tenth and ninth centuries B.C., manifests the full development of the decorative style of Luristan in plain standards like the one seen in Pl. III, 2 and, toward the end, in elaborate standards like Pl. III, 3, and in wands such as that of Pl. V, 2 or framed cheek pieces like Pl. VI, 2. To the same period belong lobed rings like Pl. II, 1 and some cylinder seals like the one rolled out in Pl. I, 1, though their designs are merely a crude reflection of the style which found its full expression in the larger bronze objects. The third phase, tentatively dated in the eighth and early seventh centuries B.C., may be called florescent in view of the luxuriant excrescences found in the late standards like Pl. IV, 1 and in the most elaborate cheek pieces. Probably the delicately engraved lobed sealring of Pl. II, 2 belongs to the same period. Finally there seems to have been in the late seventh and early sixth centuries B.C. a fourth phase, transitional to the Achaemenian style, to which some cheekpieces like Pl. VII, 1 may be ascribed.[67]) The bezel ring (Pl. II, 3) is probably contemporary with this phase.

There was certainly some overlapping in time of these stylistic phases which may now be substantiated by reference to the historical development.

We may agree with Godard in assuming that the sudden wealth of Luristan was due to horsebreeding, which in turn created the material conditions under which large numbers of bronzes could be produced for non-utilitarian purposes. The stimulus for such artistic production, however, could scarcely have arisen independently in the long sparsely populated valleys of Luristan. Only a large, settled community would have been likely to produce craftsmen in different fields such as seal engraving, bronze casting, and hammering in changing styles over several centuries. More likely the inspiration for the artistic activities, perhaps subsequently carried on by itinerant workers in Luristan, came from Elam, which was geographically the obvious goal and center for all exchanges involving goods of higher civilization desired by the chiefs of the different tribes who have probably succeeded each

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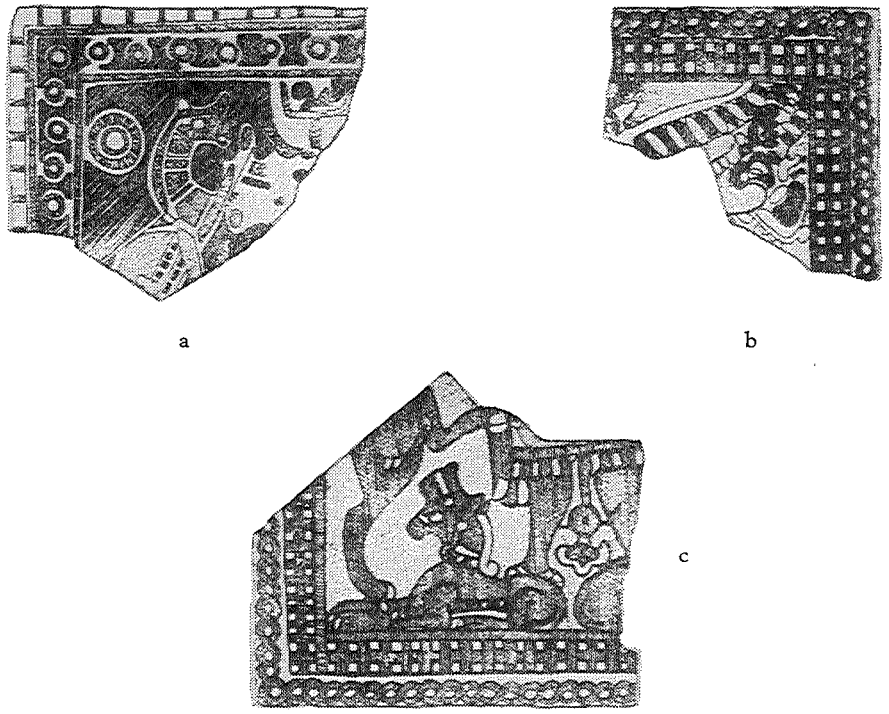
[67]) It is quite possible that works of this transitional phase were produced during the period of Median rule and will eventually be labeled Median as suggested by H. J. Kantor for objects of another and probably contemporary style, cf. *A Fragment of a Gold Appliqué from Ziwiye and some remarks on the artistic traditions of Armenia and Iran during the early first millennium* B.C., Journal of Near Eastern Studies XIX, 1960, p. 14, and reference in note 50.



Text-fig. 3

other in the region of Luristan for the last five thousand years. Only in periods during which auxiliaries from Luristan were attracted to Babylonia should we expect influences from that region. The daggers and seal-rings of the late twelfth and eleventh centuries here discussed reflect such influence. The three-dimensional bronze objects, however, such as the standards, were probably inspired by works of Elamite art, its mastery in metalworking from earlier centuries being evident in such works as the model of the sunrise ceremony of the time of Shilhak-Inshushinak (1165–1151 B.C.).[68])

That no important bronzes of the early first millennium B.C. have so far been discovered at Susa may be due to chance or to the thorough pillaging by the Assyrians under Ashurbanipal in about 639 B.C. This wholesale destruction and plundering is likely to have affected art objects of more recent centuries rather than those of earlier times; the latter were perhaps already buried as was the deposit of the Shushinak temple.[69]) The objects carried into the safety of the mountains of Luris-

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[68]) *Encyclopédie photographique de l'art, Musée du Louvre*, vol. I, Paris, 1936, p. 279.

[69]) R. de Mecquenem, "Offrande de fondation du temple de Chouchinak", MDP VII, 1905, pp. 61 ff.; also G. Contenau, Manuel d'archéologie orientale II, Paris, 1931, pp. 923–931.

tan and discovered there, may be all that remains of Elamite metal work of the earlier half of the first millennium B.C. Among these objects, the so-called Luristan situlae[70]) are probably Elamite.[71]) It seems likely furthermore that the manufacture of the goat standards was stimulated by Elamite prototypes. These would have been related in style and composition to the rein-ring, Pl. VIII, 1, which can be classified as Elamite of the thirteenth century B.C. or later, because goats and tree are rendered in a manner closely resembling an ivory mosaic from Tchoga Zanbil as well as a cylinder seal from there with the same motif.[72])

The subsequent development of the Luristan bronzes in the tenth and ninth centuries B.C., especially of the subject matter, may have been local. Even the style of the developed Luristan bronzes, however, may have had some relationship with Elamite works of art of the same time. Examples are provided by glazed tiles from Susa,[73]) like the one in Text-fig. 3: b-c, which has in the middle a demon, the

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[70]) *E.g.*, *Survey*, Pls. 69–72; Revue d'Assyriologie XLII, 1948, pp. 211–214.

[71]) Support for this suggestion may be found in the fact that the drinking scene of the situla published in Revue d'Assyriologie XLII, 1948, p. 213, Figs. 1–3 which shows both the seated and the standing figure holding a drinking vessel, a feature unparalleled in Neo-Assyrian or Neo-Babylonian designs, has a predecessor in one of the drinking scenes among the cylinders of Tchoga Zanbil (excavator's number T.Z. 488). Careful comparison of the monster and animal designs of the situlae with those on cylinder seals with Elamite inscriptions, such as the eighth to seventh century example Delaporte, *Catalogue . . . Louvre* I, Paris, 1920, Pl. 53: 13 (D. 117) will probably further confirm this suggestion for Elamite origin of the situlae.

[72]) For the mosaic, *cf.* Illustrated London News, June 13, 1959, p. 1026, Fig. 13; for the seal only the excavator's number can be given at present, T.Z. 487. G. Contenau, Manuel d'Archéologie Orientale IV, Paris, 1947, p. 2212, Fig. 1242, assigned a date in the thirteenth century B.C. to this rein ring but placed its origin in the region of Kirkuk.

[73]) The first lot of these tiles was found by J. de Morgan in a heap together with small faïence knobs inscribed with the name of the Elamite king Shi ḫak-Inshushinak; others, large and square, enamelled in green and yellow on white ground bore the name of Shutruk-Naḫḫunte (MDP I, 1900, p. 126, Pl. VI).

It seems likely that these are the kings of the late thirteenth and twelfth centuries B.C. although Elamite kings of the eighth and seventh centuries B.C. bore the same names (cf. G. G. Cameron, *History of Early Iran*, Chicago, 1936, pp. 230–231, Tables III, IV).

In MDP VII, 1905, p. 38, Figs. 42–44 and p. 39, Fig. 45, more fragments of faïence tiles were shown apparently from a small and elegant frieze which consisted of animals, mainly horses, and fantastic beasts flanking a decorative motif, probably a stylized tree, in yellow color on a green background. De Morgan stated that the soft green and yellow colors are those which are found on the enamelled monuments of Shutruk-Naḫḫunte and probably belong to the same period.

In 1928 De Mecquenem dated these tiles in the Neo-Babylonian period (Revue d'Assyriologie XXV, 1928, p. 171), a date accepted by R. Dussaud who also noted the close relation of their designs to Luristan bronzes (Syria XI, 1930, p. 254; *Survey*, Text vol. I, p. 277). In MDP XXIX, 1943, however, at the occasion of the publication of a further group of figured tiles (*Ibid.* pp. 38–39,

center of whose body is formed by a hole for the peg which attached the tile to the wall. This device of adjusting the central design to the function of the object is reminiscent of the manner in which in cheek pieces of the type reproduced in Pl. VI, 2[74]) the bit appears in the opening formed by the body of the central figure. Moreover, in some of the tiles, as in Text-fig. 3: a, can be noted the tendencies toward fragmentation of animal forms and composition based on abstract formal design which characterize the developed bronzes of Luristan. Here the question might pose itself, however, in which direction the stylistic influence operated. It is conceivable that the Elamite artists were attracted to the taut geometric shapes of the Luristan bronzes as we are today, rather than that the influence for this development emanated again from the artistic centers of Elam.

Possibly a new and non-Elamite influence appeared in the florescent phase of Luristan bronzes in the eighth century B.C. to which this writer would assign most of the unframed cheek pieces, thereby agreeing with Ghirshman both in the dating of these objects and in the suggestion that this phase may reflect preferences of the northern Nomads who moved into Iran before and about this time.[75]) This is the conclusion of the present writer concerning the relation of the Nomads to the Luristan bronzes, which was the quest underlying the detailed analysis of some of the typological groups here discussed.

The attempt at a chronological grouping of the Luristan material into several phases is intended to serve as a stimulus for future work on the subject. Its very incompleteness should call forth more thorough-going and definitive studies.

Figs. 31, 32), De Mecquenem compared the rendering of an animal on one of the tiles, Fig. 32: 2 (which he took to be a horse though I think it is a bull), to animals on the painted pottery from Sialk, Necropolis B, and suggested that they are contemporary. Such a date seems likely for some of the polychrome tiles which must have followed those showing merely blue, green and white, discovered by R. Ghirshman at Tchoga Zanbil in a thirteenth century context (Illustrated London News, July 13, 1957, p. 78, Figs. 8, 10).

A glance at the illustrations MDP XXIX, 1943, pp. 38–39, Figs. 31 and 32, however, shows that there is such a difference of style noticeable among these tiles that they probably belong to different periods.

[74]) Cheek pieces with the same motif as pl. VI, 2 were collected by H. A. Potratz, *Das Kampfmotif in der Luristankunst*, Orientalia XXI, 1952, Figs. 3–7 and 10.

[75]) For the history of this period, *cf.* I. M. Diakonov's *History of Media*, in Russian, known to me only from the résumé by R. Ghirshman, Bibliotheca Orientalis XV, 1958, especially pp. 258–259.

The writer wishes to thank Mr. T. T. Hoopes, Curator, the City Museum of St. Louis, Dr. Froelich Rainey, Director of the University Museum and Miss Geraldine Bruckner, Registrar, the University Museum, Mr. C. K. Wilkinson, Curator, Department of Ancient Near Eastern Art, the Metropolitan Museum of Art, and Miss Prudence Oliver (now Mrs. Fletcher M. Harper) of the same department, Mr. W. Stevenson Smith, Curator, Department of Egyptian Art, Boston Museum of Fine Arts, and Mr. E. B. Terrace, of the same department, the Curator of the Rosicrucian Oriental Museum, Mrs. Natasha Rambova, and Mr. Nasli Heeramaneck for permission to reproduce objects from collections in their care and for supplying photographs and measurements.

IV. NOTES ON WEAPONS AND CHRONOLOGY IN NORTHERN IRAN AROUND 1000 B.C.[1])

by

ROBERT H. DYSON, JR.

The chronological placement of weapon types in northwestern Iran has suffered from a lack of specimens which are positively documented in terms of archaeological context. As a result, the dating of most types is imprecise and often conjectural. Frequently, the narrowest possible chronological range covers a period of six to eight hundred years (Maxwell-Hyslop 1946). Such indeterminate periods are of little use to precise archaeological studies.

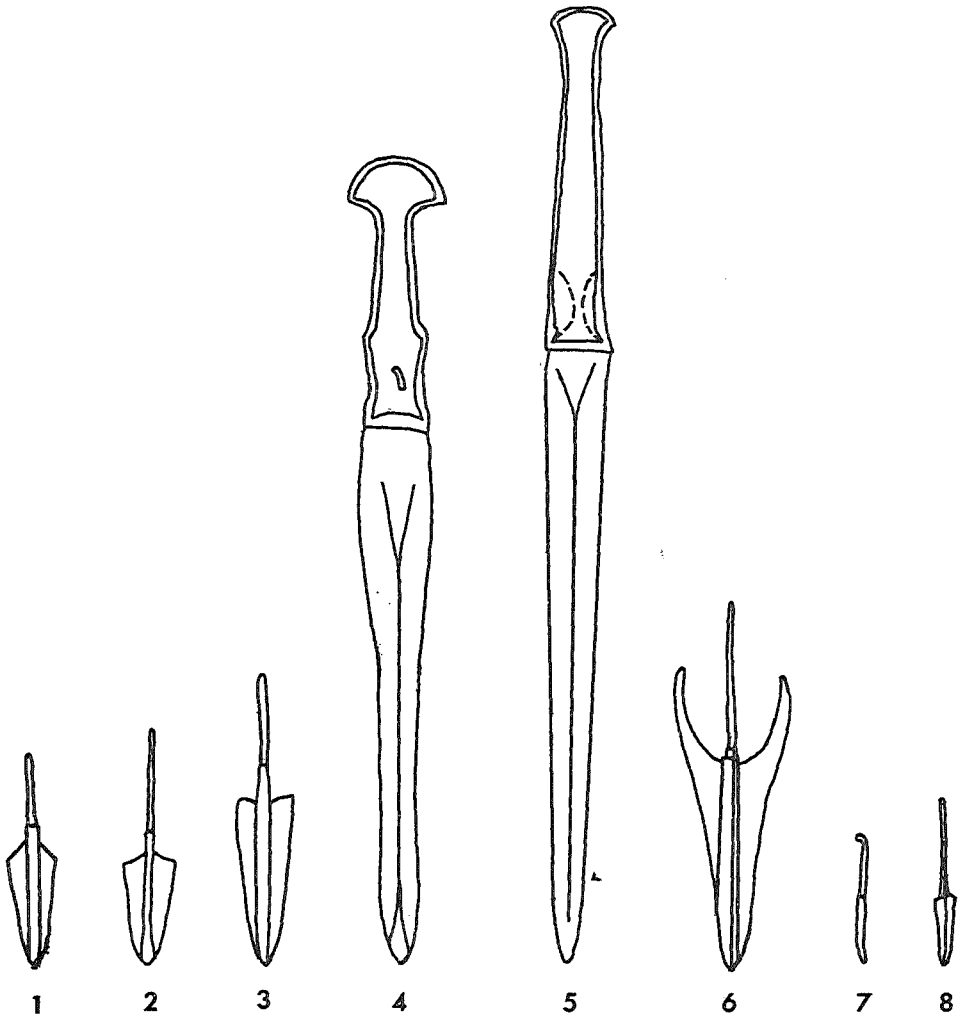
In the interest of refining the dating of certain weapon types found in northwestern Iran, this paper presents a few comments based upon new archaeological data. The data are derived from two sources: (1) an accidental discovery at Bît-Sorgh Spring in the Kermanshah area made in 1956 by several officers of the United States Army; and (2) from excavations at Hasanlu Tepe in southern Azerbaijan carried out by the Joint Expedition of the University Museum of the University of Pennsylvania and the Archaeological Service of Iran in 1957 and 1958.

Bît-Sorgh Spring. An assemblage of copper or bronze weapons was found in a stone cist-grave near the spring which is located not far from Kermanshah on the road to Hamadan. The weapon types found are shown as line-drawings in Text-fig. 1. The types were drawn from a photograph very kindly supplied by Lt. Col. H. M. Smith, United States Army. The photograph itself, unfortunately, will not reproduce clearly. The artifacts shown in the figure all came from the same grave but no information was recorded at the time of discovery as to their arrangement in the grave, nor as to what other objects may have been associated with them. Nevertheless, the association of these weapon types in a closed context is in itself a significant fact.

The weapons illustrated from Bît-Sorgh Spring consist of two quadrangular, tanged arrowheads (Text-fig. 1: 1, 2); a triangular, tanged arrowhead (Text-fig. 1: 3) two rim-flanged daggers (Text-fig. 1: 4, 5); a winged javelin head (Text-fig. 1: 6); a pin with a bent head (Text-fig. 1: 7); and a somewhat conical-headed arrowpoint (Text-fig. 1: 8). The latter, when cleaned, would probably be pyramidal in form. The flat arrowheads and the javelin point all have a prominent midrib, characteristically square in section, the extension of which forms a tang. Both daggers have rim-flanged hilts which were inlaid originally with some other material. The inlay was held in place in one instance by at least one rivet (Text-fig. 1: 4), and in the other by the slightly curved edges of the grip and pommel (Text-fig. 1: 5). As found at Hasanlu in the ninth century B.C. levels, such inlay pieces are of wood or bone cut to fit the opening for which they were intended. The weapons in the figure are

[1]) The photographs for this paper were taken by the late Reuben Goldberg and George F. Dales, Jr. The drawings have been prepared by Maude de Schauensee and T. Cuyler Young, Jr. The author thanks them all for their assistance.

Text-fig. 1



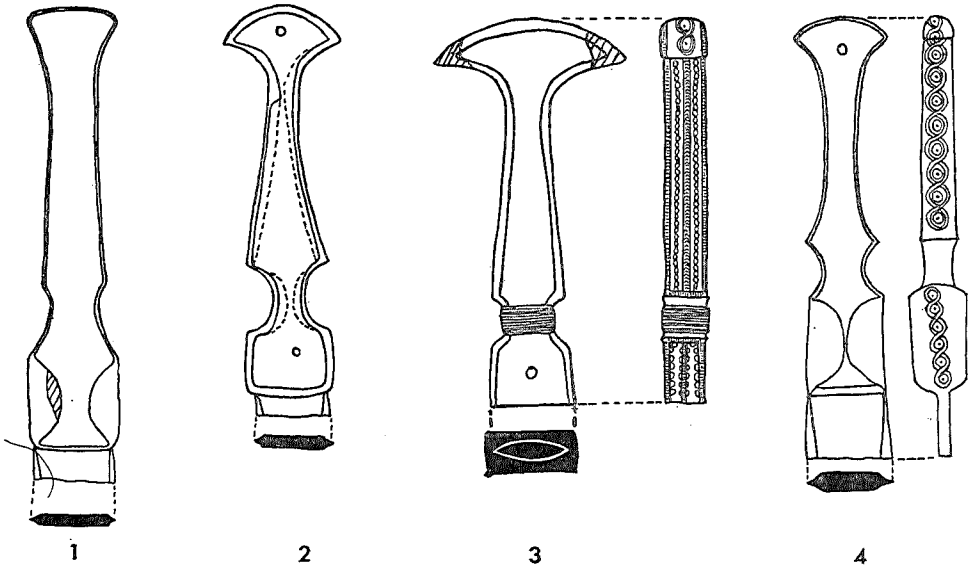
drawn to relative scale. The measurements of two of them have been provided by Lt. Col. Smith: the dagger (Text-fig. 1 : 4) measures 33.3 centimeters in length; the arrowhead (Text-fig. 1 : 2), 9.2 centimeters.

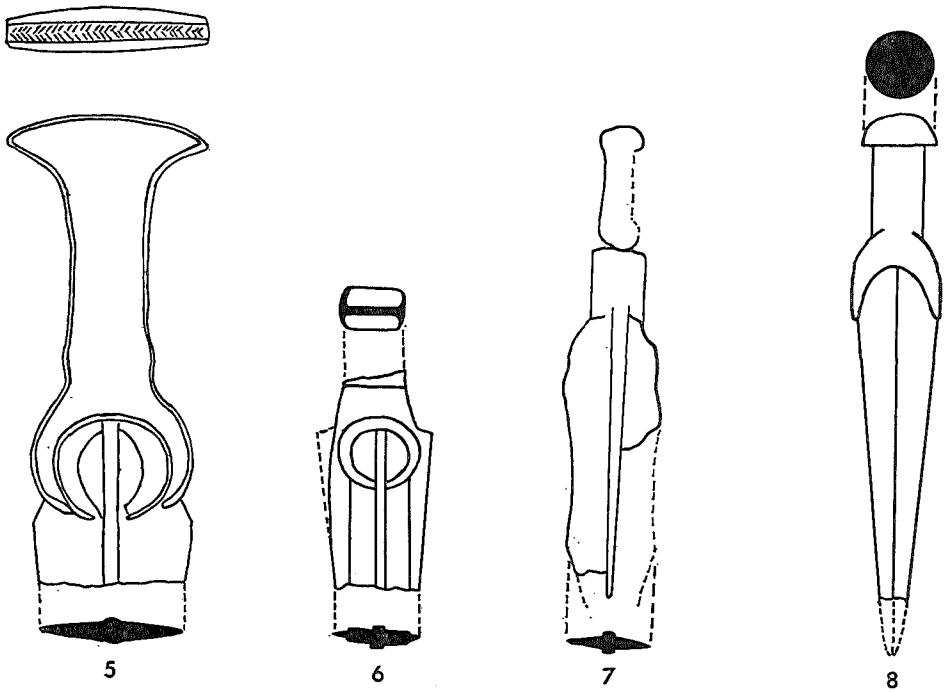
The Bît-Sorgh weapons have numerous parallels. Both arrowhead and javelin types are known from Luristan among the "floating" specimens published by Godard (1931 : Pl. XIII). Two daggers which are nearly identical to those from Bît-Sorgh are also shown by Godard (1931 : Pl. VIII: 16, 17). One of the Bît-Sorgh daggers (Text-fig. 1 : 4) is identical to one published by Pope (1938 : Pl. 55 : A) from the British Museum. This dagger measures 41.3 centimeters in length. On the same plate (Pope 1938 : Pl. 55 : B) is a duplicate of the second Bît-Sorgh dagger (Text-

fig. 1: 5) from the Musée du Louvre, measuring 36 centimeters in length. Each of these published daggers bears a cuneiform inscription of Marduk-Nādin-ahhē of the Second Dynasty of Isin, dated to c. 1091–1074 or 1098–1081 B.C. (cf. E. Porada, p. 11 *supra*). Other finds of related types are listed by Maxwell-Hyslop (1946). The inscribed specimens give a chronological fix at the end of the twelfth century B.C. for the uninscribed Bît-Sorgh daggers, and by association, to the other artifact types in the grave as well. It is perhaps noteworthy that these objects are all undecorated. In addition it may be noted that the daggers mentioned seem to fall into three paired sets (two from Bît-Sorgh, two from the Godard material, and two inscribed ones). The use of such paired sets of daggers is amply documented on Assyrian reliefs (for example, on the Ashurnasirpal reliefs; cf. Porada 1945), and by the occurrence of such a pair in the single grave at Bît-Sorgh. It is possible that the Godard and Pope pairs also came originally from the graves of single individuals.

A second, indirect line of dating lies in the comparative typology of similar daggers at Tepe Giyan (Contenau and Ghirshman 1935: Pls. V, 2; X, 10) and at Hasanlu Tepe (Text-fig. 2: 1). Grave 10 at Giyan, which contained the dagger, is assigned by Young in a new analysis to period I^2 which has its parallels with Sialk V and Hasanlu V but not with Hasanlu IV (Young 1963: 94, 134, 142). The relative dating, based on general typological parallels, is related to absolute chronology through the radiocarbon dates at Hasanlu which indicate a twelfth to eleventh century B.C. date for period V (Stuckenrath 1963). Grave 10 has previously been assigned by Ghirshman to his Ib group. This group was found lying above earlier graves which are related typologically to graves at Babylon dated by tablets to the fourteenth and thirteenth centuries B.C. (Ghirshman 1939: 20–21). On this basis Ghirshman concluded that Ib materials, including Grave 10, dated to the twelfth and eleventh centuries. He further concluded from this basis that Sialk V belonged to the same centuries. The weapon parallels now drawn between Bît-Sorgh, Hasanlu V (dated by radiocarbon), Giyan I^2 (dated by comparative stratigraphy) and Luristan (dated by inscriptions) seem to agree significantly on a late second millennium date for the related materials and the Bît-Sorgh grave.

Hasanlu V. During the 1957 season at Hasanlu, a lappet-flanged dagger (Text-fig. 2: 1; Pl. IX, 1) was found in Burial 6 of Operation IV on the eastern edge of the Outer Town area. The dagger is 35 centimeters long and originally was inlaid with wood. The slight constriction of the grip is interesting in view of the elaboration of this feature in specimens of ninth century date (see below). The earth grave containing the dagger may be assigned both stratigraphically and typologically to what formerly was called the "Button-Base Phase" and which is now designated as period V (Dyson 1958, 1960, 1962). The period comprises the middle stratigraphic phase in the Outer Town sequence and is also attested on the Citadel Mound by preliminary soundings. In the Outer Town area it overlies a "Painted Orange





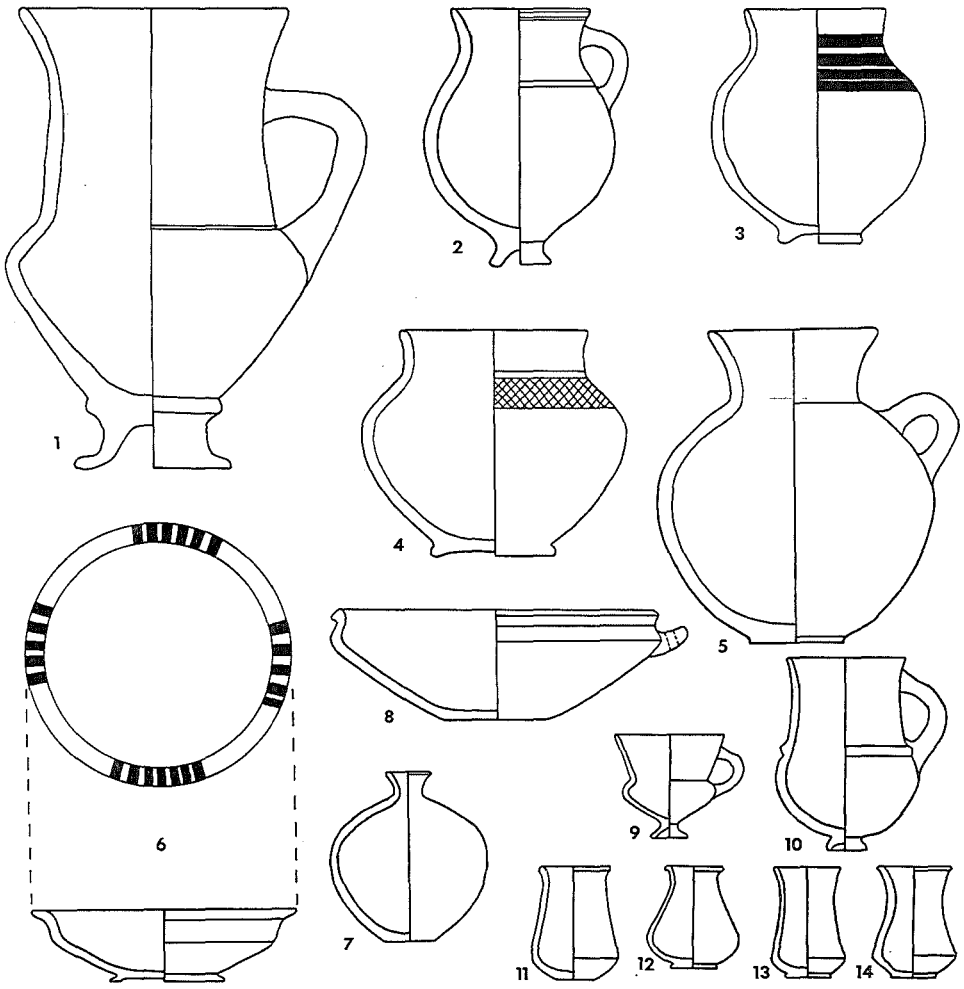
Text-fig. 2

Ware Phase" (period VII) of about 2000 B.C., and underlies the "Grey Ware Phase" (period IV) of ninth century date (see below and Ralph 1959 for a discussion of radiocarbon dates supporting this chronology).

Burials of Period V are usually characterized by the presence of a tall, footed goblet with vertical loop-handle (Text-fig. 3: 1), and a deep bowl with a vertically pierced horizontal lug (Text-fig. 3: 8). Jars with free-standing horizontal spouts are also indicated by a single sherd from the occupational debris on the Citadel Mound but have not yet been found in graves. The goblet form in burnished grey ware is known from graves in Giyan I^4 and I^3 where it is common, and more rarely in I^2 (Young 1963: Chart no. 1; Contenau and Ghirshman 1935: Pls. 10: t.10, nos. 2 and 3; 14: t.33, no. 2; 15: t.35, no. 1; 19: t.54, no. 3 and t.57, no. 2). It also occurs in Sialk V (Ghirshman 1939: Pls. IV: 4, 5; XLIII: S 523a; XLVI: S 668; XLVII: S 671a) and at Khorvine (Vanden Berghe 1959: Pl. 153c and the collection of the University Museum). Free-standing horizontal-spouted vessels are also known from these same sites and periods and more recently from the site of Marlik Tepe (Negahban 1962a: fig. 1; 1962b: fig. 13). In both Sialk V and Hasanlu V (Text-fig. 3: 4) rare examples of associated pattern-burnished grey ware vessels occur – indicating a link with earlier examples of this decorative technique as seen at Khorvine (collection of the Smithsonian Institution) and Tepe Hissar III (Schmidt 1937). The grey pottery thus provides a strong typological basis for the correlation of Hasanlu V, Giyan I^2, Sialk V and perhaps Khorvine and Marlik as well.

Also present in period V at Hasanlu, as at Giyan, are objects of North Mesopotamian derivation: button- or disc-based vases, footed vases with painted rings (Text-fig. 3: 3) and buff ware tumblers (Text-fig. 3: 13, 14)*. Parallels to these forms are well documented in northern Mesopotamia and northern Syria in the second half of the second millennium B.C. (Hrouda 1957). In one curious instance at Hasanlu the buff ware tumblers (Text-fig. 3: 11–14) occurred as the only type in an atypical grave. (Op. X B 2, 3, 4) which contained the body of a young woman, the fractional burial of an adult male, and the bones of an infant. The shape of the tumbler is known in metal from Luristan (Speleers 1938: fig. 20) and is common among unpublished metal vessels allegedly from the southern shore of the Caspian Sea (e.g. 7000 *Ans d'Art en Iran* (Paris 1961) Pl. VII). A number of these latter vessels are decorated in a style related to that of the Hasanlu Bowl (cf. Porada 1959 on the style of the Bowl, and Dyson 1960d for drawings). The same tumbler shape in pottery occurs at Nuzi in the "Hurrian" strata (Starr 1937: Pl. 76: J, K, M), dated to between 1450 and 1350 B.C. A variant form with painted rings occurs at Tell Atchana in levels III–II dated by the excavator to 1370–1273 B.C. (Woolley 1955: Pl. LXXXIX a – type 93 c). The painted button-base and footed vessels at Hasanlu are also related to the "Hurrian" period forms of Tell Billa III (Speiser

* In the 1962 season, these vessels were found to be of types characteristic of the underlying period VI which precedes the introduction of grey ware at Hasanlu.

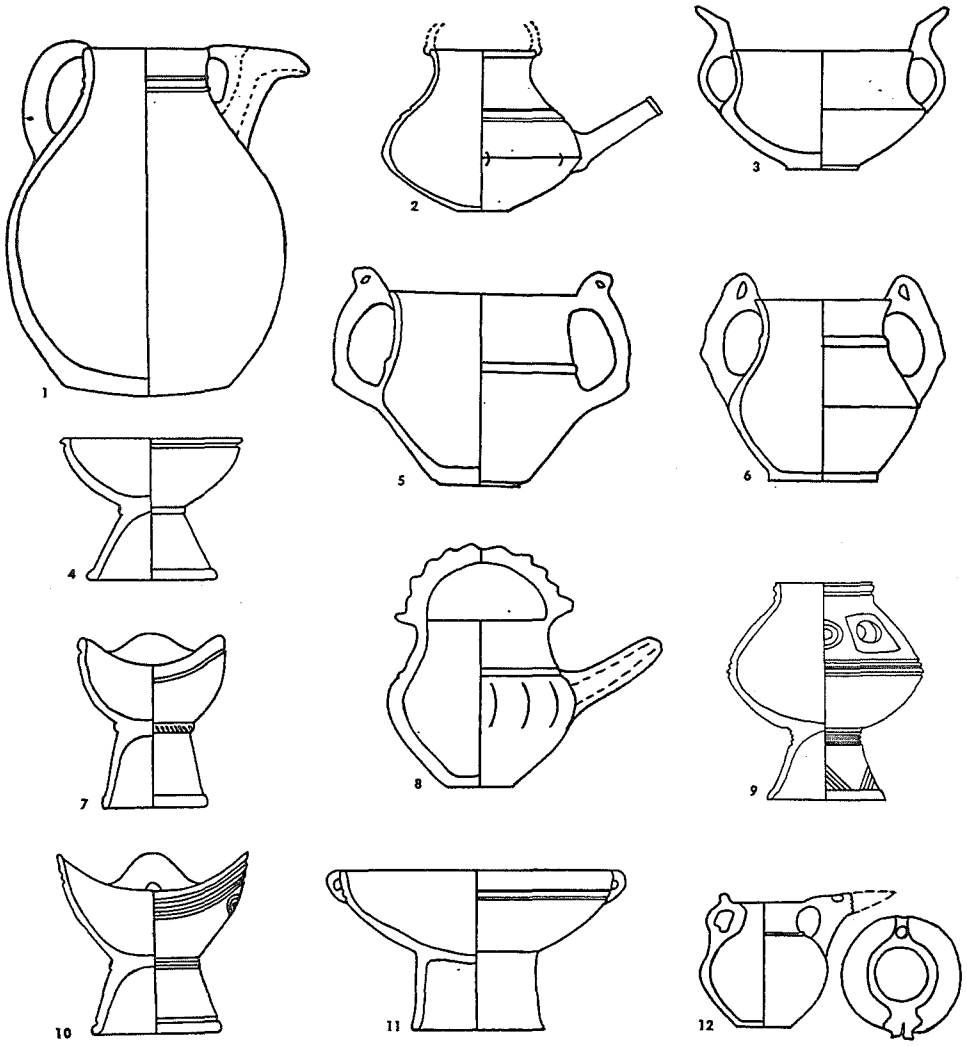


No. 7 1:3
Nos. 8-14 1:2

HASANLU V
MISCELLANEOUS WARES

0 5

Text-fig. 3



Text-fig. 4

1933: Pl. IX) but seem to be somewhat simplified. The evidence at Hasanlu suggests a somewhat later persistence of these forms in the Zagros region. In any event, these Mesopotamian ceramic elements provide a typological *terminus post quem* for the levels in which they are found in western Iran: that is, 1450 B.C. or later. For the beginning of period V at Hasanlu a date of about 1200 B.C. was originally estimated on typological grounds (Dyson 1958). This estimate was based upon the presence of a simple iron ring in one grave, the similarity of the bronze dagger (Text-fig. 2: 1) to those with inscriptions of the eleventh century, and to typological comparisons of the ceramics of Hasanlu V, Sialk V and Giyan Ib. This evidence seemed to indicate a primary time range of twelfth and eleventh centuries. The possibility of a somewhat earlier initial date must be kept in mind, however, in view of possibly earlier pottery parallels at Nuzi and less firmly dated parallels from Talish (see below).

A *terminus ante quem* for Hasanlu V is now clearly established in the range of 1000 B.C. by a series of radiocarbon assays of level IV samples run by the laboratory at the University of Pennsylvania (Stuckenrath 1963). Each sample was divided into two parts, one of which was treated with NaOH to remove contaminating humic acid. In cases where a significant statistical difference occurred the date from the treated half of the sample was accepted as the more correct. Seven samples of charcoal collected from the burned structural timbers of the two major excavated buildings of period IV confirm an average date for the construction of the citadel of that period of 1001 $\pm$ 20 B.C. An additional sample (P-322) from the debris of the fortification wall underlying Tower 4 (constructed in period III) provides a confirming date of 993 $\pm$ 54 B.C. (using a 5730 year half-life). The construction of the period IV buildings immediately follows the remains of period V. The time of the sacking of period IV has been estimated on typological grounds at around 800 B.C. Two samples of food (grapes and grain) on hand at the time of the sacking give a preliminary date of 862 $\pm$ 49 B.C.

While it is certain stratigraphically that period V preceeds period IV and hence is prior to 1000 B.C. on the above evidence, only four carbon samples attributed to V have as yet been tested. Two of these, P-418 and P-419, are from a building level immediately beneath the South Street of period IV on the Citadel mound, and yield dates of 1036 $\pm$ 49 B.C. and 1016 $\pm$ 45 B.C. respectively. The overlap of these dates with the average starting date for period IV indicates that there probably is no chronological gap between periods V and IV. This conclusion is supported stratigraphically by the absence of erosion products between the deposits of the two periods. It is also supported by the continuity of the ceramic tradition from V to IV. In Operation I on the Citadel another sample (P-185) gave 1132 $\pm$ 120 B.C. This sample was not subject to NaOH pretreatment, however, and hence may not be strictly comparable to the other dates. Similarly an earlier sample (P-198) from the Outer Town cemetery area yielded 1217 $\pm$ 122 B.C.

Should the latter two samples be in error due to humic acid content they would err on the late rather than on the early side by perhaps as much as 150 years. The dates may be accepted as indicating a range relatively close to that proposed on typological grounds, namely, about 1250–1000 B.C.

Connected with the dating of period V at Hasanlu is the problem of the dating of the Hasanlu Bowl. In regard to this question a typological link between the weapons from Bît-Sorgh and Talish, and between Talish and the Bowl (and more recently, Marlik Tepe as well) is of interest. It may be seen that the arrowhead and javelin types associated with the daggers at Bît-Sorgh occur in at least two important Talish sites, Agha Evlar and Veri (Schaeffer 1948: figs. 217, 227) and at Marlik Tepe (Negahban 1962b: figs. 21 and 22). One winged form (Text-fig. 1, 6) also occurs in Sialk V (Ghirshman 1939: Pl. V, 2). The types occur at the Talish sites with pottery quite distinct from that at Hasanlu and are dated to between 1450 and 1200 B.C. by Schaeffer (1948). The Bît-Sorgh and Hasanlu V evidence clearly indicates that some of these types continued in use as late as 1000 B.C. The Marlik Tepe evidence remains to be presented in detail by the excavator but would seem also to belong in this same time range, since it shares a number of weapons types. A connection with the earlier materials of Hissar III (III-B now has a date indicated by C-14 at Yarim Tepe of 2000–1900 B.C.; cf. Crawford 1963: 271) is suggested by the presence at Marlik Tepe of a bent-tanged spearhead (Negahban 1962b: fig. 19). At Hasanlu nothing is known at present about the arrowhead and spearhead types from period V, but there is abundant evidence of weapon types from period IV. It is no doubt significant that (1) no three-flanged arrowheads have been found in either period (indicating that the sacking of the Hasanlu IV building occurred sometime prior to 750 B.C. when three-flanged, or trilobate, arrowheads came into the Near East; (Sulimirski 1954), and (2) that in Period IV the majority of arrowheads found are of simple narrow leaf shapes made of iron. The bronze winged type of javelin heads common to Bît-Sorgh, Sialk V, Marlik and the Talish sites are absent from Hasanlu IV. The elaborate bronze weapons appear to have been replaced by simpler ones of iron.

The most important weapon type from the two Talish sites in connection with the Hasanlu Bowl is a dagger with a rim-flanged grip (Schaeffer 1948: figs. 227: 6–9; 219: 3) and a crescent cast onto the blade. This crescent normally pinches the midrib with its tips, and is thus "closed". The type is illustrated by a purchased specimen in the University Museum's collection (Text-fig. 2: 6; Pl. IX, 5). The type has also been illustrated from Marlik Tepe (Negahban 1962b: fig. 21, right). The hilt of the University Museum specimen has been broken away, but as may be seen in the preserved section, was flanged. The blade has a length of 24.6 centimeters. The sides of the crescent are set back entirely from the edges of the blade, on which it thus forms largely an ornamental part. This closed-crescent type at Talish is linked to the Bît-Sorgh grave group through the associated projectile

points. The same dagger type appears as the central weapon in a group of three on the Hasanlu Bowl (Pl. X; and Porada 1959: 20). The bowl was found *in situ* in the ninth century (period IV) level at Hasanlu. On general stylistic grounds a date between 1000 and 900 B.C. has been suggested for the bowl by Porada in a paper presented to the Fourth International Congress of Persian Art and Archaeology in New York City. This date suggests that the closed-crescent dagger either remained in use well after the date originally assigned to the Talish material, or else that the date of the latter should be re-examined. A lower date for the dagger type is supported through the cross-dating of the Talish material with Bît-Sorgh. A dagger of closed-crescent type, made of gold, was found in the same area as the Kalar Dasht cup on the southern shore of the Caspian Sea (Vanden Berghe 1959: Pl. I; 2, a; pp. 5–6). The shape of the cup is identical to that of the Hasanlu Bowl, although smaller, while the decoration on both is directly related, stylistically. The stratigraphic and stylistic dating of the Hasanlu Bowl, combined with its typological and stylistic connections to the objects from Kalar Dasht, argue for a similar date for the Kalar Dasht material. The closed-crescent dagger at Kalar Dasht, through its typological link with Talish daggers and through associated weapon types indirectly with Bît-Sorgh, leads to a similar conclusion; namely, a date of twelfth to eleventh or perhaps tenth century.

Similar vessel shape and styling of design on an electrum bowl recently acquired by the Louvre Museum (Parrot 1958: Pl. XV) indicates that it too belongs to a similar chronological range. The Louvre bowl has been dated on stylistic grounds by Parrot (1958) to 1300–1200 B.C., and by Porada (1962: 91) to 1300–1000 B.C. These objects, coming as they do from northwestern Iran have an important bearing on the newly discovered gold vessels from Marlik Tepe which await publication by their excavator Dr. Negahban.

Even without the evidence from Marlik Tepe the relationship of the levels at the sites mentioned above, linked as they are by pottery, weapons and styles, and related as a group to both the radiocarbon dates of Hasanlu and the inscriptional dates of Luristan, shows that at the end of the second millennium in northern Iran a well established tradition of bronze and gold working had come into existence.

Hasanlu IV. On the basis of the available evidence several remarks may be made in regard to the documentation of dagger types in the area of northwestern Iran in the ninth century B.C. The linear rim-flanged dagger is elaborated in Hasanlu IV through the use of a fully splayed pommel and a pronounced constriction of the grip. This development is foreshadowed in the period V dagger referred to previously (Text-fig. 2: 1). Text-fig. 2: 2 (Pl. IX, 2) showing a badly corroded bronze specimen of the modified type, excavated at Hasanlu in 1958 in Burned Building I. It is 28 centimeters long. That the constrictions of the grip were bound with metallic wire or some other material is suggested by the chased design along the sides of another dagger (Text-fig. 2: 4; Pl. IX, 3; Pl. XI, 1), comparable in type to

the one seen in Text-fig. 2: 2. The design is interrupted at the constriction where it would have been hidden by the wire. This decorated specimen from western Iran was purchased by the University Museum in 1939 and is 38 centimeters long. Both sides of the grip and the pommel are decorated with a single chased guilloche. The use of wire as a decorative element around the constriction of the grip of daggers in Hasanlu IV is attested by the discovery of an intact example in Burned Building I (Text-fig. 2: 3; Pl. XI, 2). The hilt is of iron covered with gold foil. The foil is decorated with a chased geometric pattern similar in style to that seen on the reliefs of Ashurnasirpal (Layard 1849: Pls. 51, 52). The thin wire is also of gold. The dagger was found with the leader of a group of three men associated with the Hasanlu Bowl. All were facing in the same southeasterly direction on the second floor of Burned Building I when it collapsed in flames, trapping them in the debris. One of the men carried the golden bowl; a second carried a mace with a star-shaped head of bronze (Dyson 1959: 13, upper right) and an iron sword. The leader of the three-man group had fallen sprawled on his face (Life, Jan. 12, 1959; 57, lower). The dagger lay partly under his shoulder and between his right arm and chest, as though originally suspended over his shoulder; a position similar to that shown on the Ashurnasirpal reliefs for paired daggers (Porada 1945). When found, a wooden sheath was indicated around the blade by the presence of wood dust faintly visible in the damp soil. The preserved length as shown in the figure is 14 centimeters. Nearby lay two unattached pieces of bone inlay. Lying along the lower right side of the sheath was a smaller bronze and iron dagger (Text-fig. 2: 7). This dagger consisted of an iron blade held between two prongs of bronze which lay along the midrib of the blade. The handle, which had disappeared, must have been of wood. The weapons were too badly corroded to be lifted intact even with the use of preservatives. The grip of the larger dagger, however, was preserved and is now in the collection of the Archaeological Museum in Teheran.

With these Hasanlu IV daggers (referred to in Miss Porada's article as "lappet-flanged"), among other types, were solid iron daggers of an "open-crescent" type (Text-fig. 2: 8). In this form the largely decorative crescent of the earlier variety has been replaced by a crescent forming a more functional part of the dagger: a broad reinforcing element for the juncture between the grip and the blade. The tips of the crescent have been spread apart until they run along the two edges of the blade. The aperture of the crescent is thus "open" rather than "closed". An intermediate form may be seen in a bronze specimen from Agha Evlar (Schaeffer 1948: fig. 217: 2) and in another specimen from northern Iran recently purchased by the University Museum (Text-fig. 2: 5). The latter is 15.3 centimeters in length. Daggers and swords of this open-crescent type in hammered iron appear to have been a popular item in the military equipment of the ninth century at Hasanlu.

Summary. In summary then, the Bît-Sorgh grave group links eleventh century inscribed daggers, floating Luristan specimens, Giyan I^2, Sialk V and Hasanlu V

weapons (with previously estimated dates of 1200–1000 B.C.) to weapons from Talish with suggested dates of 1450–1200 B.C. and to the bronze weapons at Marlik Tepe (date uncertain). The Talish material in turn is linked through the Hasanlu bowl to the Kalar Dasht cup, the Kalar Dasht dagger, the electrum vessel in the Louvre, and new gold objects from Marlik Tepe. The close typological links between the Bît-Sorgh and Talish weapons suggest a significantly close cultural relationship between the Kermanshah valley and the Talish region. This relationship seems to be borne out by the fact that the casting of small bronze animal figurines, for example, is rare at Hasanlu (a notable exception being the production of specialized lion figurine-pins in the ninth century) while it is carried on in both the Luristan and Caspian areas. This pattern of geographical distribution should be considered as indicating an important route of influence in any attempt at identifying the movements of nomadic intruders into Luristan.

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V. TECHNICAL ASPECTS OF THE HERZFELD BENT IRON DAGGER OF LURISTAN

by

JOSEPH TERNBACH

In his book, *Iran in the Ancient East*,[1]) Professor Herzfeld in discussing the earliest known bronze daggers from Luristan describes "one exceptional dagger made entirely of iron (Figure 252) . . . the blade is turned under 90° to the hilt, a feature entirely unparalleled."[2]) He does not, however, explain this phenomenon. Dr. Ghirshman[3]) also illustrates this singularly interesting dagger as one of a great number of weapons of iron and bronze found in Luristan, but makes no reference to its unusual condition.

This iron dagger (Pl. XII, 1a) is 43.5 cm (17 and 1/16 inches) long, of which the hilt is 15 cm (5 and 7/8 inches), and the blade is 28.5 cm (11 inches). The weight of the dagger is 628 grams, with the weight of the handle appearing to be approximately twice that of the blade. The hilt is flat, 3.2 cm (1¼ inch) broad, tapering down to 2.5 cm (1 inch), and .8 cm (5/16 inch) thick.

The hilt consists of what may be considered three sections. The pommel is a flat disk from which two human heads with long beards project in the round over the rim, facing in opposite directions. The backs of the heads develop into the heads of lions, facing each other. Two protruding rings form the handle into three segments and so provide the very effective grip. The guard is decorated with a crouching lion on either side. The decorating human heads and the crouching lions are at right angles to the blade.

The handle is designed to lie flat in the palm of the hand. The blade is perpendicular to the center of the flat side of the hilt. This fact is most unusual, and seems to determine that this specially designed dagger should be used for stabbing, probably in an overhand thrust.

The blade is tapered and double-edged, 2.5 cm (1 inch) wide and in the center section, 1 cm (3/8 inch) thick; it is roughly divided into a flat center area thicker than the equally wide, concave sharpened edges. The blade is bent at two places, one about mid-way to 45° and the second about 6.3 cm (2½ inches) before the end of the blade, parallel to the blade.

Careful examination of the areas of the bend reveals that on both places, the incrustations on outer and inner surfaces are missing (Pl. XII, 1 b). Furthermore,

[1]) Herzfeld, Ernest E., *Iran in the Ancient East*, Oxford, University Press, London, 1941.

[2]) *Ibid.*, page 135.

[3]) Ghirshman, Roman, *Iran*, Penguin Books, Great Britain, 1954, pages 99–100.

on the 45° bend, the blade is eaten up about 1 cm (3/8 inch) by rust narrowing the blade unnaturally by indentations on either side. Thus, as a weaker point it took the bend more easily than any other spot on the blade might do; the other bend shows a similar weakness. It follows that the incrustation sprang away from these areas by force of the bend. Contrariwise, had the bends been made in ancient times, the blade would be uniformly encrusted; in fact, on the inner surfaces of the deep angle a thicker accumulation of deposit would have remained attached and protected within the angle than on the flat surface. This, in my opinion, is evidence that the bend is of more recent origin than the life time of the dagger. One could easily assume that during the process of excavation the blade was hit or pressed by an accident and so bent to its present form.
This evidence contradicts the interpretation offered by Dr. Porada[4]) that the blade had been deliberately bent to make this a devotional dagger, sacrificed, "a killed weapon", that is, not to be used in combat but devoted to the altars of the gods.

The incredible fact that in the accident this thin blade did not break completely or even crack where the bend occurs bears on the question of the material of which the dagger is composed. Professor Herzfeld speaks of this as "an exceptional dagger made entirely of iron" and says "all the specimens known of this dagger in the Museum in Brussels, the Louvre, and two in my collection are one and the same, as if cast in, or hammered into the same mould. Although a chemical and microscopic analysis, made at my request, speaks of wrought iron, the identity of the specimens seems to me to eliminate free-hand forging. A technique proper to iron is apparently not yet developed. These objects count among the first attempts at working iron."[5])
Undoubtedly many questions provoked Professor Herzfeld to obtain the chemical and microscopic analysis, among them to clarify whether the dagger was forged or cast. The first assumption of Professor Herzfeld that this dagger and other known ones of the same pattern, are forged iron was plausible. The metallurgical analysis he obtained verified this. His statement, however, that the "identity of the specimens seems to me to eliminate free-hand forging" contradicts the metallurgical report, particularly when he adds "as if cast in, or hammered in, the same mould", to explain this identity.
In my opinion there is no doubt that this dagger is of forged iron. A current metallurgical analysis verifies the findings of particulars characteristic of wrought iron (see appendix table and microscopic analysis). A cross section of the material shows a density and pureness which only forged material contains. There are no pores or impurities as in cast iron. Furthermore, cast material would be brittle and so

[4]) Dr. Edith Porada participating in the Nomadic Symposium.

[5]) Herzfeld, *op. cit.*, page 135.

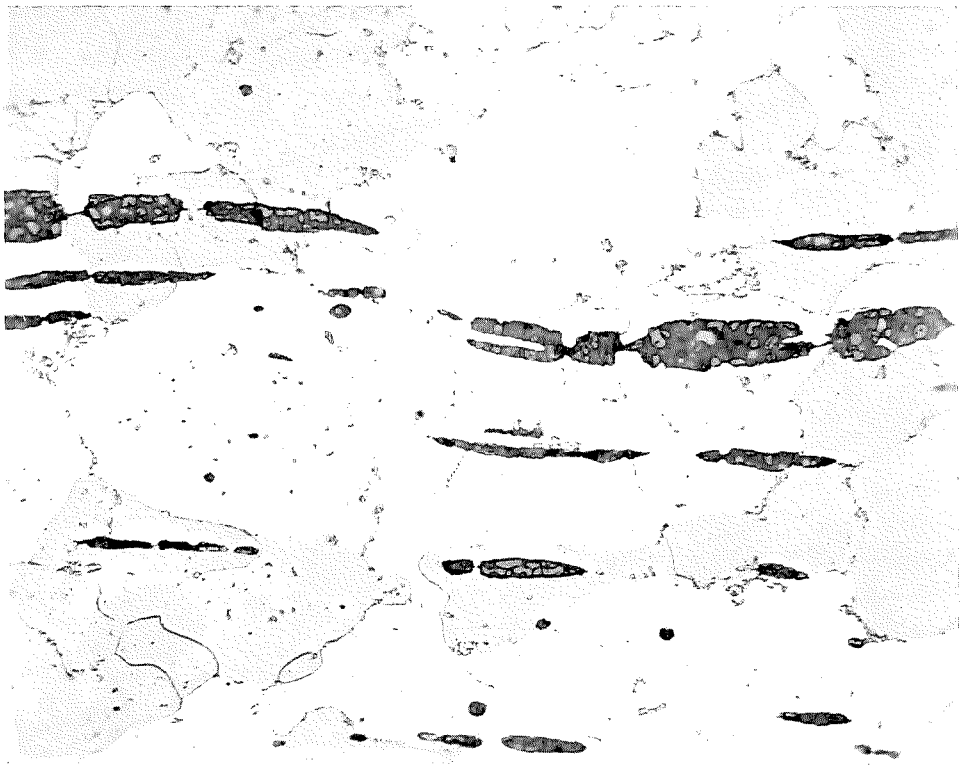

Plate 10366 Microstructure of Luristan Dagger 300 X

Photomicrograph of longitudinal section of small piece cut from Luristan dagger showing large and fine grains of ferrite through which are dispersed small globular carbides. The large mottled gray non-metallic stringer inclusions are characteristic of a wrought iron.

the dagger in the course of time would to a greater extent have been chemically decomposed. I am also convinced that had it been cast, the blade would have broken at the time of the accident – or even if it were deliberately done, in ancient times.

Professor Herzfeld refers to "specimens of iron daggers in the Museum in Brussels, the Louvre, and two in my collection." Both the daggers from the Herzfeld Collection, that is, the one with the bent blade, and one of which the blade is mostly missing, plus five more of the same pattern have become available to me for examination (Pl. XIII, 1–7).[6]) The material of all of them appears to be of the same quality. The seven daggers range in length from 35.5 cm (14 inches) to 51 cm (20 inches), and in weight from 303 grams to 1521 grams. All specimens are of the same striking design and pattern as if done by the same hand or at least by the same workshop, but are different in size, shape, weight and detail of decoration. One dagger (Pl. XIII, 7) is especially noteworthy because of its dominance in size (over 51 cm – 20 inches long, and the tip is missing). The dagger is, in addition, particularly interesting because the human heads on the pommel with the adjoining lions' heads and the crouching lions on the guard, are inlaid with agate cabochons. The metal was carved to form the settings for the stones. The hammering which was necessary to hold the stones securely did not break the settings because the metal had been forged and was dense. Cast iron handled in this way would splinter. This dagger is of exceptional beauty and artistic merit in sculptural perfection with minute details chased and engraved.

On the pommel of the shortest dagger (Pl. XIII, 3), the two human heads were produced by a hammer stroke that raised the thickness of the disk, making it oval shape and building up material for heads and adjoining lions' heads. Then the faces and heads were chased. These facts, again, point to the individual forging of this type of dagger.

Inasmuch as all these daggers, including the two from his find, show size variations, as well as different detailing, the theory of Professor Herzfeld that these could come from the "same mould" is not substantiated. The fact appears to be that they were individually forged, carved and engraved and in one instance set with semi-precious stones. The artistic and luxurious decorations of these weapons and the different sizes would point to the fact that they may have been made as hunting weapons and implements for contemporary nobility.

It seems to me that these daggers represent the stage in the iron industry when all

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[6]) Messrs A. and K. Rabenou have graciously made daggers (pl. XIII, 3, 4, 5, 6, and 7) available to me for examination and have kindly permitted me to include them in this discussion. I wish to take this opportunity to thank them for this. They report that one of these daggers was found in Alishtar in 1928 and the others in the area of Porchte Kouh in 1959.

the processes and advantages of iron were already experienced; specifically, that hammering the metal, annealing it in charcoal to add carbon to the iron, quenching and tempering it – all contributed to make it into steel, whose durability and hardness rendered it desirable for weapons and thus superior in these respects to bronze. It is my opinion that all the daggers discussed here are the product of one important iron producing area where highly developed skill and artistry had been achieved in working the metal.

Following is the metallurgical analysis of the Luristan daggers submitted from the Ternbach Collection:

REPORT

July 15, 1960
L.P. No. 588984-5

Mr. Joseph Ternbach
110-21 69th Avenue
Forest Hills, New York

Subject: Luristan Daggers

A very small wedge-shaped section about 1/8 inch long, was cut from the blade edge of one of two ancient daggers described as "Luristan Daggers with heads of man, animal and crouching lion." The wedge-shaped piece was then re-cut so that longitudinal and transverse cross-sections could be mounted in bakelite, ground and polished for metallographic examination.

Etching of the polished specimen with a 2% solution of concentrated nitric acid in absolute ethyl alcohol (nital) revealed a microstructure of banded zones of widely varied grain size in which was dispersed fine spheroidized carbides. In addition, there were large non-metallic stringer inclusions similar to the silicates found in wrought irons. Plate 10366 is a photomicrograph showing the typical microstructure and inclusion stringers observed.

That the non-metallic inclusions occur as stringers and that there is banding of grains, is a strong indication that the dagger blade had been forged, probably from the pounding together of many smaller pieces of wrought iron to form a larger mass which was then hammered out to form the complete blade.

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New York

VI. THE NOMADIC IMPACT: GORDION

by

RODNEY S. YOUNG

Ancient Gordion, situated at the junction of the Sangarios and Tembris Rivers, lay astride one of the main routes from the Anatolian plateau down to the coast. For this reason (among others) Alexander's army wintered there in 333 B.C., and for this reason the Royal Road of Darius the Great (which has been recognized at Gordion) passed that way, doubtless following military and trade routes of still earlier times. So situated, Gordion must of necessity have been affected by any great east-west movement of peoples. The Phrygians themselves we know to have been immigrants into Asia Minor. Whence they came and when they settled in the region that later came to be known as Phrygia is still largely a matter of tradition or of conjecture. Perhaps future digging at deeper levels in Gordion may throw some light on these problems. For the present, however, though this source for the earlier history of Phrygia remains untapped, we are becoming increasingly familiar with the level of material culture achieved by the Phrygians up to the beginning of the seventh century, when their power was broken and their capital destroyed, presumably by the nomadic Kimmerians.

An analysis of this culture in its various manifestations may show it to be somewhat mixed but certainly not itself of nomadic origin. The strongly walled city with its monumental gateway bespeaks a people which was settled in its way of life and intended to remain so; moreover the planning of the gateway and the execution of its masonry imply a familiarity with contemporary military architecture and long practice in the handling of stone for masonry. The masonry, in fact, with its sloping batter and its more or less regular coursing recalls neither the cyclopean Hittite masonry of the Anatolian plateau in earlier times, nor the commonly prevalent contemporary construction of crude brick. The closest parallel is the masonry of the Walls of Troy VI, admittedly very much earlier. If any links exist to fill this time-gap, they must lie in west Anatolia rather than on the plateau. The buildings within the city, too, were of the so-called Megaron type – free-standing structures divided by cross-walls into inner hall and outer vestibule, usually with a round hearth at or near the center of the inner room. The earliest known buildings of this type are of course Anatolian also: the great Megaron of Troy II, and now an equally early structure at Beycesultan on the Maeander. The type would thus seem to be of west Anatolian origin and well-suited to the relatively cold and wet winter climate of the plateau, the inner chamber with a hearth to warm it entered from one side only, through the antechamber, and covered by a gabled roof to shed rain and the snow that sometimes here lies deep in the winter. That the roofs were gabled – at least at Gordion in the eighth century – is suggested

by the finding of a voluted stone acroterium to be associated with one of the Phrygian buildings; by the pictures – doodles – scratched on the wall faces of the same building, which show houses with gable roofs and curly acroteria; by the Phrygian rock façades (though these may be somewhat later) at Midas City to the west, with their indications of sloped roofs and their curving acroteria; and finally by the gabled wooden tomb beneath the greatest of the Gordion tumuli. None of these structures, of course, can have anything to do with the tents or covered wagons of the nomads. They represent the permanent shelters of a settled people accustomed to an agricultural and an urbanized life in the course of which they practiced many and varied arts and crafts.

The construction of the tomb chamber with its nicely fitted and finely finished timbers elaborately mortised together at the corners shows that the Phrygians were first-rate carpenters, probably with long experience in the working of wood and consequently long settled in or near a wooded region. Builders in wood and builders in stone obviously collaborated in the construction of the buildings in the city, in one case making a wooden roof which had a clear span of nearly ten meters without interior supports. But other craftsmen in wood, the inlayers and the cabinet makers, showed even finer skill in the production of elaborate articles of furniture – screens and tables, stools and beds – the wood turned or bent, cunningly fitted together and neatly inlaid with patterns in wood of contrasting color. These skills may have been learned from the Orient, but the prevailing patterns of the inlay were geometric and of the west. The geometric style of decoration was probably brought into Anatolia by the Phrygians when they came and was developed there as a part of their own heritage unaffected by the new semi-oriental environment. This same geometric tradition is exemplified not only in the inlaid decoration of furniture but also in many other media. It appears in the mosaic floor of an eighth century building. The mosaic, of dark red and dark blue and white natural pebbles, shows a scatter-pattern of many unrelated geometric motives, giving the rich effect of an oriental carpet. The technique of mosaic-making may have been learned from the east, but its application here was geometric and Phrygian. The painted pottery, matt black on buff or black on red, usually shows a basic framework of geometric decoration. Sometimes whole vases are covered with purely geometric ornament, but in other cases the influence of oriental neighbors is shown in the lions and bulls, the stags and antelopes (Pl. XIV, 1), which have crept in to fill panels in an otherwise geometric framework. The ultimate influence here was probably Assyria, though an influence from more remote Iran may be recognized, if not in the geometric decoration itself then in the repertory of vase shapes. The jugs with exaggeratedly long side-spouts recall similar Iranian vessels from Cemetery B at Tepe Sialk, though the Phrygian versions usually have the handle at one side (instead of opposite the spout) to facilitate pouring directly into the mouth of a drinker (Pl. XV, 1, 2). This seems to have been permitted by the Phrygian canon of polite

manners, and the Phrygians must have been right-handed.

Similar spouted jugs of bronze designed for the same use have been found in the tombs, usually with a strainer device (present also in the pottery vessels) at the base of the spout. The bronzes were undoubtedly for the greater part made in Phrygia. The ubiquitous Phrygian geometric decoration appears exquisitely engraved on the surfaces of bronze belts which were evidently worn by the dead when they were placed in the tomb. The cerements were fastened not only at the waist by a bronze belt but also at shoulder, elbow and wrist by bronze fibulae. These seem to have been the most numerous item among the contents of the jewelry-box of a Phrygian potentate. The Royal Tomb contained 145 bronze fibulae which had been wrapped in a linen cloth and placed on a table beside the bier, as well as thirty-odd more which were found on and about the skeleton; and another tomb contained more than 170 such fibulae. All are of Blinkenberg's Asia Minor types (his Type XII), which we may now with assurance call Phrygian. Fibulae of this sort were exported not only to the west, where they have been found in Greece and Italy, but also to the south and east where we may recognize them on reliefs of Tyana and of Assyria, though the actual fibulae found in these regions are more apt to be of the Cypriot than of the Phrygian types. Fragments of crucibles from which molten bronze has been poured have been found at Gordion in contexts as early as the seventh century, and there can be no doubt that in the eighth a flourishing bronze-working industry was already in operation there.

For the many and varied bronzes found in the Royal and other tombs, then, we must not exclude the probability of local manufacture, though we may see in some of them various oriental influences in type or style. The cauldrons with bull-head attachments, for example, differ in stylistic detail from the more numerous and better known Urartian bull cauldrons, and they may attest an independent and contemporary Phrygian school of bronze-working – certainly it is most unlikely that they were imported from the region of Lake Van. The cauldrons with siren attachments evidently reflect the influence of Assyria, though it is by no means unlikely that they were actually made at Gordion. The lion-headed situla which finds parallels in the reliefs of Sargon the Second's palace at Khorsabad certainly reflects Assyrian influence. Moreover, it is a conveniently dateable artifact which may serve to pin down the chronology of the Royal Tomb to the years around 725 B.C. The rich Gordion tombs with the huge tumuli heaped over them must obviously antedate the catastrophe of the Kimmerian invasion. The destruction of the city by fire has been attributed to the event itself; and the 1959 campaign, in clearing some of the more important buildings of the destroyed Phrygian city has brought to light a number of pottery vessels, remnants of wooden furniture, and bronzes that closely parallel the ones found in the tombs. That this destruction was definitely the Kimmerian one of the early seventh century which resulted (according to Eusebios and Julius Africanus) in the suicide of King Midas seems

now to be established beyond a doubt.

We may therefore date the flourishing of the Phrygian culture as seen at Gordion to the latter half of the eighth century and the opening of the seventh. Successive building periods show that this phase of the city prospered over a relatively long time – at least a half-century, and probably more. The origins of its culture we have seen to have been somewhat mixed: to a proper Phrygian tradition of building in wood and in stone and of ornamenting in a geometric style were added the influences of Assyria and of Urartu, of Iran and of the Neo-Hittite cities of North Syria. Actual contact with lands east is attested by the finding at Gordion of vessels of blue faience and of glass, and of the black-on-red geometric pottery of Cyprus. Flax seems to have been imported for the making of linen cloth; perhaps from Egypt in the form of thread already spun, since the linen thread found at Gordion shows a typical Egyptian twist. But the earliest Greek import so far found remains a Rhodian bird-bowl of the mid-seventh century unless, accepting the traditional view that the local alphabets of Asia Minor were all derived from the Phoenician alphabet through the Greek, we may see a Greek influence of around 725 B.C. in the four alphabetical inscriptions, one a graffito on a pot and three on wax, found in the Royal Tomb. Accumulating evidence seems to show, however, that in the eighth century the preponderant influence ran the other way, and that the Greeks not only imported and imitated the bronzes of Phrygia and Urartu, but probably in Samos and the other Greek islands just off the shores of Asia Minor, learned the arts of hammering and casting bronze from the Asiatic peoples on the mainland opposite. The eastern contacts of the Phrygians themselves were direct and overland, certainly not at second hand through the Greeks by a roundabout sea voyage along the shores of Asia Minor to west-coast ports which were just about as far from Gordion as Al Mina or starting-points elsewhere along the north Syrian coast. The whole question of the transmission of alphabetic writing from the Phoenicians not only to the Greeks but also the peoples of Asia Minor as they become better known to us is one that should be looked at again, and looked at without the traditional spectacles devised by Kirchoff in 1887, which have become so comfortable that we are hardly aware any longer that they exist.

This literate and developed Phrygian culture was interrupted by the invasion of the Kimmerian nomads at the beginning of the seventh century. Up to that point there had been little if any visible nomadic influence in the Phrygian amalgam, and the raid itself was purely destructive. The Scythian methods of burial as described by Herodotus and as revealed by the excavations in the south of Russia resemble the Phrygian in the construction of wooden tomb chambers and the heaping of mounds over them; but the Phrygian tombs seem to be the older. One nomadic practice, the sacrifice of horses and the burial of their bodies outside the tombs, does appear at Gordion in the post-destruction period. A tomb of the normal sort, with wooden burial chamber and tumulus over it, dated to the seventh century,

included two horse skeletons laid over the tomb roof, evidently before the stones were piled upon it prior to the building of the tumulus (Pl. XVI, 1). Another tumulus of the sixth century covered, among other things, the skeletons of eight or more horses; but in this case no wooden tomb was found beneath. In both cases, however, the implication is of horse sacrifices at the time of burial such as was practised among the nomadic peoples. Bronze horse-trappings were included – frontlets and snaffle-bits of iron with elaborately worked bronze cheek-pieces – but the trappings resembled more closely Assyrian gear than anything found in the Scythian tombs of Russia. Curved and talon-shaped attachments cut from white stone and bored with holes to hold crossing attachments fastening them to cheek-pieces such as are shown in representations of Scythian horse gear, have been found at Gordion, but on higher levels of the city mound belonging to the sixth century. Little else has been found that may be attributed to or even vaguely connected with the nomadic peoples. So little is known about the way of life of the Kimmerians or their burial customs that it seems safer to attribute any nomadic influence not to them but to the Scythians themselves, who are reported to have followed on the heels of the Kimmerians – in fact the Kimmerian irruption is said by Herodotus to have been caused by the Scythians who first displaced them from their original abode (wherever that was) and then followed them into Asia Minor. Nomadism is a way of life, and the question consequently arises as to whether the Kimmerians were a truly nomadic people at all or a settled people who, driven out by the nomadic Scythians, had adopted a wandering life only temporarily in consequence. In that case they would be better described by the modern term "displaced persons".

The traces of these invading peoples at Gordion are few and elusive, yet the destruction that they wrought was definite and widespread. Their incursion seems to have been of brief duration and without permanent consequence. The power of the Phrygians was broken and Gordion became, instead of the capital of a powerful kingdom or even an empire, merely the center of a provincial district limited probably to the upper valley of the Sangarios River. Eventually, we are told, it was taken over by Croesus, King of Lydia, whose borders extended eastward to the Halys River. If Herodotus is to be believed the Phrygian royal dynasty continued into the sixth century. The unlucky Adrastos, son of Gordius, son of (a later) Midas, was received by Croesus when he was already king of Lydia. The Phrygian culture continued the same, too, though in decline. Rich tombs belonging to the seventh century and buried beneath still impressive mounds have been opened. The architectural tradition and the materials and methods of building remained the same – in fact the city at Gordion, when it was eventually restored, was rebuilt on much the same plan as its predecessor. The Phrygian bronze workers continued to produce their characteristic vessels and fibulae. The later work of the potters shows both decline and improvement: while the painted wares become increasingly

childish and primitive the monochrome polished wares improved to an elegance of shape, a thinness of fabric, and a high lustre never attained in earlier times. But while the culture retained its essential individuality the glory was departed. What had been the capital of a great kingdom, the goal of many a journey from distant parts, became merely a provincial center and a stopping-place on a highway which connected more important new centers to the east and to the west. The nomadic impact at Gordion, since it left behind no traces of its own culture nor any enduring influence on the local scene, was entirely destructive. Yet perhaps by interrupting an individual and advancing culture which was capable of still further advance and which was already wielding a civilizing influence on the remote and barbarous west the nomadic incursion did to some extent change the course of history.

VII. PHRYGIAN ANIMAL STYLE AND NOMADIC ART

by

ELLEN L. KOHLER

The world collections of animal art, to which the Eurasian nomads have made such a major contribution, have recently been supplemented by a group of wood and ivory carvings from the Phrygian site of Gordion. These are precious documents in themselves because the preservation of wooden objects is very rare, but they have special significance for a study of nomadic art because they show "animal-style" connections for Phrygian art from the late eighth to sixth centuries B.C. To understand the characteristics of nomadic art, one must remember that the nomadic culture relied basically on the raising of sheep, reindeer, goats and horses, and the hunting of deer. These animals then, together with bird-life, would be most often depicted in their art. The efficient solution to problems of transport, on animal-back or by wagon, led to a type of decorative art which could be applied to portable objects, had to be light in weight, and in outline began to occupy only a contained space. The latter implies that it could be packed flat, or was collapsible, or could be hung or carried as trappings on an animal or a cart. Such restrictions pressed the carver of wood, bone or ivory eventually into miniaturism.[1]) His materials, even in the rough, could be made portable, and so could be whittled en route. Within these limitations, then, nomadic art extended its repertory of designs based on animals, to designs based on parts of animals, and from there to fantastic twistings, graftings, and superpositions, but still within the "tidy outline". During such a process naturalistic animals tended to lose their identities.

The selections from the Gordion repertory which illustrate nomadic affinities come for the most part from the group of tiny wooden animals found inside a crushed cauldron in the Tumulus P burial in the Phrygian cemetery[2]) and from ivory objects found on the Phrygian and archaic levels on the City Mound. Animals of wood and of ivory are mentioned together without apology because these two substances are, on analysis, related as being material suitable for treatment by the miniaturist artist. They are both fine-grained substances and since they are built up of similar cylindrical layers of deposition, they yield to the artist in much the same way, posing like problems of hand and tool control. As a result a master in one material could be considered a master in the other and traditions could pass back and forth; sectioning, quarter-sawing and longitudinal cutting achieve rather similar

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[1]) Minns E. H. *Art of the Northern Nomads* (Proceedings of the British Academy No. 28, 1942) pp. 4 ff.

[2]) AJA 61 (1957) pl. 91, figs. 16, 17.

results in inner marking. But of the two, ivory is capable of taking a higher polish and would be preferred where and when available.

Tumulus P on various grounds has been dated ca. 700 B.C. just before the Kimmerian destruction.[3]) The animals from it are in some respects a quite homogeneous lot. They are all apparently of the same kind of wood and their heights run roughly between 6 and 10 cms., with the actions of the animals accounting for part of the variation. What their original purpose or purposes could have been is not clear since, whether with or without plinth, they had already broken off or come unglued from whatever they had been attached to before their deposit in the cauldron. In some cases where plinths are preserved it cannot be proved that the plinths were ever attached to anything.

Among the carvings from the cauldron, there is a group of a lion and bull (Pl. XVII, 1) done in the round, but not in true round. The animals are worked from the front and from the back (in less degree) but the whole is flat and the ends do not have enough width to allow for realistic necks and rumps. They make what might be called a plaque in a stage of development toward sculpture in the round. The bodies are posed heraldically and compressed into a figure eight within an ellipse. Due to the elongation of the bodies and the curve of the necks, and the use of the same jaw-ridge, they begin to look like each other. Their composition reminds one of the golden bracteates and pendants from Hamadan,[4]) which are Median or Persian. On the animals of the Gordion group special areas have been marked out for surface treatment and they have been given a very well-cut design in shallow relief – the mane of the lion in compounded scale-pattern and the bull's neck wrinkles in gently rippling ridges. But since the subjects, bull and lion, are outside the nomadic repertory, the artist in this case has selected an oriental subject, lion fighting bull, but his treatment has removed their oriental ferocity and made them peaceful parts of a well developed composition.

Another example, a lion very different in style (Pl. XVII, 2), just walking this time, has a large body shortened from back to front, and widened from side to side. It is not slinky or feline at all; in fact from the mane toward the rear it resembles a horse. The mane and shoulders are compartmented for separate treatment. The back is worked less fully than the front, but the whole is done truly in the round. The most striking detail is the face, which is spade-shaped in profile. The area of the mane is engraved in basket-weave design. The best parallels for the basket-weave mane are from Tell Halaf, e.g., the scorpion-man.[5]) Another feature of the

[3]) AJA 60 (1956) p. 263 and note 24; 61 (1957) pp. 330–331.

[4]) Kantor H. J. *Achaemenid Jewelry in the Oriental Institute,* JNES 16 (1957) pl. 3, top and pl. 9. Here the composition is developed to eights within eights. Ghirshman (*Iran* pl. 24b) illustrates a pendant with two lions saltire, rampant, and regardant in a modified elliptical frame.

[5]) Opitz, D. and Moortgat A., *Tell Halaf* III: *Die Bildwerke* (Berlin 1955), pl. 142 = Frankfort, H., *The Art and Architecture of the Ancient Orient* (Baltimore 1954) pl. 158A.

Gordion lion is the jeweled line enclosing the shoulder area. These lines are made of raised dots between ridges, a convention in the ivory-carving world of the Bronze Age and later in Greece, Syria, and Phoenicia, but such jeweled lines are never used to mark shoulder zones there. The dotted line is also at home among the textiles of the nomads, where fine stitching, tufting and cording give contrasting outlines to figures, or frame a plain area. Such techniques appear for example in the carpet from Pazyryk.[6]) But in Gordion itself the border of dots between lines can be found outlining the animal panels on a series of painted-and-polished pots.[7]) A third animal, still in keeping with the Phrygian version of the nomadic animal style, is that in Pl. XVIII, 1. His identity is uncertain because he has lost his horns, ears and tail which were pegged in separately. He appears basically to be assembled from a number of cylinders swollen or constricted at strategic points. Consistently, all his cross-sections are circles and circles have been incised on his body as decoration. Obviously the artist was more interested in the decorative effect than in a naturalistic portrayal of an animal. The legs for instance slant to a "windblown position"; the nose is elongated and tubular. If branched horns, straight ears and a flag tail were added, the result would be a close approximation to a deer as seen on an Alişar pot of the earlier East Phrygian painted "goat" or "deer" style.[8]) The circles which are now applied to the body were moved out of the panels where they had originally been filling ornament. The author of this form in wood, or someone in the line of his previous masters, must have been aware of the Alişar style.

A further instance of the short-barreled torso and the elongated nose is to be seen on a tiny bronze horse, one of four to draw a model chariot, the crushed remains of which were also in the Tumulus P cauldron (Pl. XVIII, 2). His exaggeratedly rounded flanks and outlined shoulder zone, however, link him with the lion of Pl. XVII, 2.

Pl. XIX, 1 shows a fourth and completely different style of animal carving – a griffin eating its prey. His body, as in the case of the "Alişar deer", is formed of cylinders, but the superficial areas are now rectangles and triangles marked off from each other by squared ridges or neat carination. For the subject, animal eating other animals or parts of animals, one may look east as far as the Ordos bronzes. And in Gordion, in Tumulus III, dug by the Koertes in 1900, there was a wooden

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[6]) Rudenko, S. I., *Kultura naseleniya gornogo Altaya v skrifskoe vremya* (Leningrad 1953), pl. 116, 1 = Barnett, R. D., and Watson W., *The World's Oldest Persian Carpet*, ILN No. 5959 (July 11, 1953) pp. 69–71, figs. 10–12 = Barnett and Watson, ILN No. 6037 (Jan. 1, 1955) pl. III facing p. 26.

[7]) Akurgal, E., *Phrygische Kunst*, pls. 14a, 19a.

[8]) Schmidt, E. F., *The Alishar Hüyük, Seasons of 1928 and 1929.* (OIP. 19; Chicago, 1932) p. 244 fig. 317; p. 249, fig. 323. Also Akurgal, E., *Phrygische Kunst*, pls. 1–7a, dated by him to "Früh-phrygischer Stil" of "vor-750–730."

figure, a lion standing erect eating a lamb which hung from its mouth.[9]) (Incidentally the lion is of special interest, as furnishing evidence that wooden animals on plinths were sometimes used as handles, bolted to the center of flat wooden cauldron lids.)

The griffin's beak is long, sheathed, and pulled down in a very non-Greek manner. Such beaks are found on bone bird-plaques from the Kuban of the sixth to fourth centuries B.C.,[10]) and such arrising and setting off of planes is familiar from Scythian metal plaques which were made sometimes by casting from, sometimes by pressing over, whittled wooden patterns.[11])

In addition to the Tumulus P group in the Phrygian cemetery, a new group of miniaturistic animals emerged, during the 1959 season, in Megaron III on the city mound. These were found on the last Phrygian floor under the Kimmerian destruction debris, and were in the form of square plaques for inlaying in furniture. In very low relief in a plain slightly inset raised frame, a walking griffin (Pl. XIX, 2), is again found to be eating its prey – this time a fish, fish seemingly being a special diet for Phrygian griffins. It is chiefly characterized by the low center of gravity in the body, the enclosed shoulder and flank areas and the bird's head at the end of its tail.

There is a second similar relief-plaque from the same piece of furniture, a walking deer with a long thin reverted head (Pl. XX, 1). A third is of a horse carrying an armed rider (Pl. XX, 2). The three plaques could have been carved by the same artists, who chose to make griffin, deer and horse have identical bodies. For this artistic style no close parallels outside Gordion are known at the present time.

After the Kimmerians sacked Gordion the mound was abandoned for an interval not yet determined. However, late in the seventh or early in the sixth century it was reinhabited and a new city was built over a deep clay fill. On the first habitation floor, above clay, an ivory comb was discovered with low relief panels of animals, one preserved on each face.[12]) It is broken along one side so that it is difficult to tell whether animals once faced each other around a tree in the Oriental manner or whether they were merely standing singly, as in the square frames of the inlays from Megaron III. On side A is a griffin with heavily sheathed beak and long low body. It lacks the usual curling tress and the knob is greatly abbreviated. The tail ends in a bird's head, in true animal style. On side B is a male sphinx which closely

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[9]) Koerte, G. and A. *Gordion* (JdI Erganz. V) pl. 5 and p. 68, no. 49 = Akurgal, *Phrygische Kunst*, pl. 60c, d = Bossert, H. Th., *Altanatolien* Nos. 1091–1093.

[10]) Observe the sharp angles of juncture of the superficial planes of a deer from Kostromskaya and a lioness from Kelermes (Minns, *Op. cit.* pl. IA, B; cf. also pp. 3–4 for discussion of this woodcutting technique).

[11]) On the process of casting, Minns, *Op. cit.*, p. 4.

[12]) AJA 60 (1956), pl. 86, figs. 23–24.

resembles the griffin except for its own identifying elements. The knobby breast area, the lines of the leg tendons and the birds' heads can be duplicated on carved sphinx- and griffin-orthostates in Ankara, which are of the local purple andesite and are probably Phrygian, although with some Late Hittite admixtures of style.[13]) The comb, iconographically paralleled only in Phrygia in another medium, stone, must have been made at Gordion. It is perhaps slightly later than the square plaques from the megaron, but it stands in the same tradition of very low relief and gently rounded and smoothed plain areas. The comb also shows that the artist has attained greater experience in ivory cutting and more competence in the treatment of motifs.

The animals selected have been from a variety of groups, but they are outstanding examples of groups to which other members can be assigned. Since the groups are interrelated and can be connected with other crafts at Gordion such as pottery and bronze-casting, they must represent a local school of miniaturistic carving; however, the examples discussed here were not meant to give a rounded picture of the Phrygian School, but rather to illustrate how the Phrygians adopted nomadic and some other eastern ideas, devices, and techniques and welded them together into a style distinctly Phrygian.

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[13]) The location of the building to which the Ankara orthostates belonged is unknown, but it may well have been in the city, e.g., under the Augustus Temple. The orthostates are now in the Archaeological Museum, Ankara. Cf. Barnett, R. D., JHS 68 (1948) p. 11, fig. 9 = Akurgal, E., *Spaethethitische Bildkunst*, pl. 48b, 49a, b. Cf. also Frankfort, H., *Op. cit.*, pp. 186 and 259, note 106.

VIII. POSTSCRIPT ON NOMADIC ART

by

MACHTELD J. MELLINK

One of the aims of the symposium was to analyze the nomadic traits which intruded into the ancient world of the Eastern Mediterranean and Western Asia, both regions with articulate cultures superior to those of the invaders of the period after 1200 B.C. Nomadic "traits" may be more easily identified than nomads themselves. A strictly nomadic mode of living was perhaps not even practiced by some of the invaders who entered the periphery of the ancient cultured world. Mixed forms of nomadic existence, combining pastoral migrations with seasonal farming in fixed regions, may have been typical of tribes who found themselves easily, though aggressively, at home among the old settlers of the Near East. Some tribes may never have sacrificed their migrant habits in favor of permanent residences, but other groups seem to have assimilated themselves more or less quickly to the local pattern of rural or urban living. Among the suspects of continued vagrancy are the Kimmerians and Scythians who entered Asia Minor. They raided and ransacked, terrorizing the countryside, farms, villages and towns, but they did not apparently arrive at a stage where they settled down as permanent residents of Anatolia. Archaeology, at least so far, has been unable to assign any habitation levels or sites in Asia Minor to Kimmerian or Scythian occupation.[1])

As R. S. Young pointed out in his preceding article on the nomadic impact at Gordion, the Kimmerians archaeologically recorded their presence at that site by creating a destruction level of notable dimensions. They invaded the late eighth century city, looted the buildings and set fire to the plundered mansions and magazines of Midas' capital. The Kimmerians of this group must have withdrawn to the countryside and pursued their exploits mostly in Western Asia Minor, as their subsequent attacks on the Lydian kingdom show. No Kimmerian settlement is in evidence at Gordion. The city continued as a Phrygian site. A mudbrick outer defense wall was erected on the east side of the citadel, probably as a special anti-nomad device, creating an enlarged sheltered area for the population of Gordion against the sudden raids of Kimmerian (and later, Scythian) horsemen.

The Phrygians themselves are clearly of a different cultural order than their Kimmerian and Scythian enemies. Indo-European invaders of Asia Minor, and, so far as the Bryges-Phrygians in Midas' kingdom are concerned, Dark Age immigrants from Thrace, horsemen and conquerors, they did not behave like inveterate nomads once they had entered the realm of Asia Minor. It is not yet clear how soon they took over the bourgeois style of sedentary living from the Bronze Age Western

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[1]) Cf. K. Bittel, *Kleinasiatische Studien* (Istanbul 1942) pp. 123 ff.

Anatolians they replaced. E. Akurgal points to the remarkable lacuna in the history of settlement in central Anatolia,[2]) where the Hittite sites lost their inhabitants, status and names in the onslaught of the invaders, not to be reoccupied by newcomers until the eighth century B.C. (or somewhat earlier. In any case, regardless of the duration of the chaotic period, a gap of considerable length remains). Akurgal suggests that nomadism may have been one factor which caused the break in the sites of the Anatolian plateau.

The situation at Gordion is not yet clear. Preliminary soundings have yielded inconclusive evidence about the substance of transitional habitation levels between the Hittite Empire and the period of Midas. R. S. Young emphasized that the Gordion in which Midas ruled was a well built, heavily fortified citadel, with a layout of monumental "megara" and adjoining buildings of impressive size and organization. This late eighth century level at Gordion is undoubtedly an adaptation of a long-standing West Anatolian building tradition found prevalent in the country which the Phrygians occupied (cf. p. 52 *supra*). Future campaigns will have to explain how the invaders made the transition from their primitive existence in Europe to the semi-urbanized architectural organization attested at Gordion. They may have practiced symbiosis with the surviving Bronze Age Anatolians for almost four centuries before the Gordion of Midas was built, and parts of Western Anatolia may have suffered less from a break in habitation than the central plateau.

Were the Phrygians nomads in the strict sense of the term before they entered Asia Minor? For a migrant or semi-migrant stage of Phrygian living in Europe pre-1200 B.C. we have no evidence. On the other hand, the two preceding papers dealing with the Phrygians at Gordion have pointed out that Phrygian culture displays some "nomadic" *traits*.

The first major archaeological feature which the Phrygians seem to share with the nomads is their burial customs. They erect log cabins or simpler wooden constructions in which their prominent dead are deposited with personal equipment, furnishing and gifts. These wooden tomb-chambers are then covered with a pile of rocks and earth mounds, in a system known most impressively from the largest tumulus at Gordion, the "Midas Mound". The parallels with the description of Scythian burial customs by Herodotus (IV. 71; the human and horse sacrifices are a special feature of the Scythian burial ritual) and more especially with the excavated burial mounds of Scythian chieftains at Pazyryk in the Altai, are clear. At Pazyryk, inner and outer constructions exist which form detailed parallels to the double-walled protection of the "Midas" tomb at Gordion.[3])

The date of the Herodotean and Pazyryk evidence is considerably later than that

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[2]) Ekrem Akurgal, *Die Kunst Anatoliens von Homer bis Alexander* (Berlin 1961) pp. 6f, 72f.

[3]) Alexander Mongait, *Archaeology in the U.S.S.R.* (Moscow 1959) p. 169. E. H. Minns, *The Art of the Northern Nomads* (in: Proceedings of the British Academy 1942) p. 61, fig. 3.

of the Phrygian burial mounds excavated at Gordion. Tumuli of the "Midas Mound" type at Gordion belong to the eighth century B.C.
Their predecessors have not yet been identified at Gordion, and the question of the date of Phrygian settlement at the site is involved in this situation. But the burial custom, whenever it was introduced in Gordion, seems to follow a well-established pattern which must have its development elsewhere. It is not a Hittite or West-Anatolian custom which could have been adopted by the Phrygians. On the other hand, the prototypes of Phrygian burial customs are more easily found as one moves out of the settled and developed regions of the Near East across the Caucasus to the steppes of South Russia and Siberia. "Timber-graves" are a well-established feature in the Volga basin in the second millennium B.C.[4]) The occurrence of earlier, related burial types in the Kuban valley (Maikop burials) confirms that the pattern originally belongs North of the Caucasus. It makes its appearance in Asia Minor or the Balkans after invasion periods when intrusive tribes move from the steppes into the southern lands. The Kuban and Timber-Grave evidence does not allow us to use the term *nomadic* as a strict categorization of the burial type; "also nomadic" would be more appropriate. There are many variants of burial customs and sacrifices, depending upon the traditions of the individual tribes, and the degree of nomadism varies, but the basic burial pattern is consistent. The Phrygian burial custom of "timber-grave in a barrow", then, will have to be interpreted as being of South Russian derivation. The custom *also* appears with the nomadic steppe-dwellers of Asia, but in itself is not an indication of nomadic living.
The question of nomadic traits in art is perhaps of analogous nature. The vast reservoir of the steppes has gradually emerged as an area where certain tastes and styles of visual arts had developed before the steppe-dwellers entered into contact with the established and articulate cultures of the Near East. We know the final and hybrid products best. Scythian and Sarmatian art, blended with ancient Near Eastern and Greek inspiration, still maintain certain peculiarities of form and subject-matter which are not borrowed from the known world of ancient art. The characteristics of the "animal style" as studied by many art historians, notably Rostovtzeff and Minns, were emphasized by Miss Kohler in the preceding paper. The choice of animals, and special animals (birds, deer, reindeer, horses), the preference for folded poses, the fantastic manipulation of animal forms and elements, zoomorphic juncture and zoomorphic excrescences, the angularity of modelling in wood as well as in metal, the calligraphic delight in exaggerations and free play of form inspired by but moving away from its organic prototype: all these

[4]) Cf. Marija Gimbutas in "Expedition" (Bulletin of the University Museum, University of Pennsylvania) III, 3, 1961, pp. 14–22, who emphasizes that the Timber-grave people should not simply be called steppe nomads.

features make up an artistic mentality or style which is too tenacious to be overcome by its confrontation with Greece and the Orient. It is known how a Graeco-Scythian blend of metal work developed in South Russia; it is becoming known that the Ziwiye treasure contains elements of inspiration from the Scythian repertoire (cf. R. Ghirshman *supra*). In the case of the gold work from Ziwiye, an oriental idiom which is syncretistic but all ancient oriental (principally Assyrian, Urartian) is enriched in some cases and in an eclectic way with ready-made Scythian forms. This situation then creates the interesting assignment to trace these Scythian and earlier "nomadic" forms of art in their pure status, before they themselves had become exposed to the repertoire of the Near East and later, of Greece. We no longer can deny the existence of, or the possibility of recovering art forms of populations in a primitive and nomadic stage of life. The burials of the nomadic steppe-dwellers and their semi-nomadic or settled relations are the proving-grounds of the independent "nomadic style".

The remarkable discoveries of burials and burial equipment in the frozen kurgans of Pazyryk in the Altai region, late and mixed though the objects may be, give us proof that is not subject to chronological limitation. Normally perishable materials, such as wood, leather, felt, textiles, human skin are shown to have been the vehicles of articulate and consistent artistic expression in a specialized form of the "animal style". Many of the ornamental carvings from Pazyryk, although they may belong to the fifth and fourth centuries B.C., are pure "nomadic" art, while other pieces have borrowed Greek, Achaemenian and Mesopotamian inspiration. The original "nomadic" repertoire, so far as Pazyryk can show us, is ageless. It is independent of the known cultures of the ancient world, and it is at home in media which can precede metallurgy and which, in spite of being perishable, are suitable vehicles for an elaborate and consistent artistic idiom.

If we are willing to credit the various tribes of steppe-dwellers with art styles of their own at an early age – and a few pre-Pazyryk finds of steppe art would tend to confirm this – it may be possible to understand aspects of art from the better known parts of the ancient world in a new light. Miss Kohler in her paper on the wood-carvings from Gordion gave an interesting demonstration of "nomadic" features in the Phrygian repertoire and style. These features are non-oriental, non-Hittite, not West Anatolian, and they can only have entered Asia Minor with the Phrygian immigrants, quite possibly embodied in wood-carvings carried along by their owners and continuing to be made wherever the tribe went. By the time from which we have a number of specimens preserved, the Phrygians have begun to add oriental inspiration to their repertoire, the lion and the lion-and-bull group clearly being of Mesopotamian (or Hittite) derivation. But the deer and related animals of the group owe nothing to the ancient Orient. They have the strongest affinities to the "nomadic" element at Pazyryk. Here again, the nomadic element is timeless. We can trace it only when accidental preservation offers us finished products in

wood or other perishable media. The excavations at Gordion have been particularly fortunate in recovering wood-carvings from tumulus P and some charred wooden relief from the city-mound.

In this artistic category we find a "nomadic" element in the culture of the Phrygians. As admitted before, it is perhaps unfair to maintain the label "nomadic" for an artistic trait which is *also* nomadic, but which, in the case of the Phrygians, must have been carried through the semi-nomadic into the settled stage. On the other hand, the peculiar tenacity of certain aspects of the "animal style" vindicates the label nomadic as referring to the origins of this artistic complex.

Because of the lack of early finds of the Pazyryk and Gordion type, the age of the animal style is a matter of speculation. At present, our best documents are the seventh and sixth century works in bronze and gold from the Ulski, Kelermes and Kostromskaya barrows in the Kuban area. They betray their dependence on established prototypes in their accomplished form. Their arrised surface treatment points to wood as a medium familiar to the artists.

Neither the Kuban finds nor the Ziwiye complex are quite as early as the wood-carvings from Gordion. The Phrygian evidence will help to convince the student of "nomadic" art of the antiquity of this category, which is now proved to have been in existence in the eighth century B.C., but potentially is of a much more venerable age.

Bronze Age Anatolian and Greek archaeology have a hypothetical source of illumination in the nomadic art complex. The established patterns of culture were repeatedly interrupted by invasions of ultimately nomadic origin. The Indo-European immigrants of the Bronze Age, whether Greeks or Hittites, are often thought of as having arrived on the scene as destructive elements (for which archaeology can made a good case) of a cultural and artistic level far below that of the peoples whose territories they invaded. More specifically, the Greeks are thought to have brought in little in the way of arts, but rather a mentality and disposition such as later on displayed in "tectonic" tendencies of Mycenaean art. After the Early Helladic tradition was interrupted, so little artistic originality is found in the Middle Helladic Greeks that the category of art remains vacant to our knowledge until an overwhelming Minoanization takes place in the Shaft Grave period.

A caveat may be based on "nomadic" considerations. The immigrant Greeks, whichever tribe(s) they may have belonged to, could have imported with them an artistic repertory in portable and perishable media – the nomadic media of wood, leather and felt. This suggestion is not new, but it is often brushed aside as fantastic. The evidence from Pazyryk, and if nothing else, the tattoos of the chief from Kurgan 2, should help to dispel scepticism. The Middle Helladic vacuum, then, may be a vacuum in preservation only. It is, in a way, comparable to the vacuum in the pre-Kelermes period of nomadic art, when the wooden prototypes of the gold ornaments were created and traditionalized. And, just as a full-fledged "noma-

dic" style becomes visible to us when translated into the preserved metals of the Kuban barrows, there may be fully formed, imported Greek motifs among the objects from the Shaft Graves.

Previous analyses of the Mycenaean materials have considered this possibility. Greek elements have been searched for in the strongly Minoan and Orientalizing milieu of the old (Schliemann's) grave circle. In the pottery, native traits are most clearly recognized.[5]) Among the more precious belongings, it would seem that some objects and styles of decoration owe little or nothing to the known arts of Crete and the Orient. One may point to the angular, arrised treatment of the gold lion's head rhyton from Grave IV (Karo 273)[6]) as a stylistic feature without precedent. Unusual motifs appear on the pins from Tomb III, crowned with heraldic deer (Karo 45, pl. XXVI) or "wildcats" (Karo 50, pl. XXVI), or in the ornaments of dogs with reversed head (Karo 41, 42, pl. XXVI), all "lokaler Grabschmuck" in Karo's terminology. Some of these gold ornaments seem to contain a stylistic element which perhaps belongs to an animal style of nomadic affinities. The abstract ornamental detail perhaps shows most clearly that the Shaft Grave Mycenaeans had an artistic repertoire of their own. The scroll patterns on the lozenge-shaped appliqués from Tomb V (Karo 668 ff, pl. LXVI) suggest a "migration style" of early derivation.[7]) In both cases, animal and abstract ornaments were originally carved in wood or bone and overlaid with gold foil which borrowed its form from the underlying material. Some of the lozenge-shaped appliqués still have preserved their bone substance.

The confrontation with Crete and the Orient has influenced the results we see in the Shaft Graves, where a pure "nomadic" version of Greek art is no longer to be expected. Earlier tombs of immigrant Greek chiefs may produce interesting surprises. The tradition of carrying so much gold ornament on the body, and of sewing plaques in profusion on costumes, strikes one as a feature of nomadic character, viz., portable wealth being carried in ornamental form on the body. The Shaft Grave situation is complicated and not simply to be explained as the outcome of a confrontation of immigrant nomads and Minoan-Oriental cultures. The timing of the immigration of the Shaft Grave warriors, the route of their migrations and their possible previous settling places, the specific form of their

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[5]) Cf. A. Furumark, *The Mycenaean Pottery, Analysis and Classification* (Stockholm 1941) pp. 496 ff.

[6]) G. Karo, *Die Schachtgräber von Mykenai* (Munich 1930–33), pl. CXVII–CXVIII, 273; cf. the small scale gold lions, all curled up, from Grave III, pl. XXVII, 32. The rendering of forms here aptly corresponds to Minns' description of Scythian work: "contrasted slanting planes meeting along a definite arris", o.c. p. 48.

[7]) Cf. Karo's discussion of Shaft Grave ornament, o.c. pp. 258 ff, "Vor manchen Ornamenten aus den Schachtgräbern . . . wird man stark nicht bloss an Werke der nordischen und ungarischen Bronzezeit, sondern ganz besonders an die La Tène- und sogar an die Völkerwanderungskunst erinnert . . ." (p. 290).

burial customs (unlike the "nomadic" tumuli, and crowned not with anthropomorphic stones but with relief stelae) all require careful analysis in a wider context, but the possibility that the art of the tombs still contains "nomadic" portable artistic traits should be envisaged.

The same factor may have to be taken into account, after many discussions of "Doric art" and the origins of the geometric style, in the period of renewed Greek immigration after 1200 B.C. The hypothesis of artistic idioms being carried in perishable media (wood, bone, leather, basketry) has been defended and derided from time to time. The situation in Asia would encourage those who see in the Greek latecomers of the Iron Age potential transmittors of artistic forms and decorative repertoires of developed and traditional character, not visible to us until they are translated into permanent media of the newly settled invaders.

For the early periods in Anatolia, one might reconstruct the same theoretical confrontation of established settlers and immigrant intruders, with an artistic interplay of old Anatolian idioms and imported, portable styles. Major intrusions are known to have occurred in the early second millennium when the Hittites appeared on the scene. Previous invasions are probably to be seen in the establishment of dynasties of the Alaca Hüyük category. A complication exists in the early consolidation of artistic styles on the periphery of Anatolia e.g. in the Caucasus area. The clearest presentation of a semi-Mesopotamian, but also semi-original style is seen in the material from Maikop in the Kuban valley. A distinctive animal style is developed here in the third millennium B.C., most clearly embodied in the gold and silver figurines of bulls. At Maikop we also find the "nomadic" use of gold animal plaques sewn on cloth. The Maikop complex, itself probably indebted to animal style features of age-old nomadic derivation, begins to interact with Anatolian art, as is clear from the affinities between Maikop and the Royal Tombs at Alaca Hüyük and Horoztepe. Peripheral intermediaries may have been of importance in consolidating traits of animal style before they reached the center of Asia Minor.

This is perhaps the final complication to be emphasized in what has already become a network of hypotheses in this note. "Nomadic" art, tentatively considered an old and respectable entity belonging to tribes roaming the steppes of Eurasia, becomes known to us mostly in indirect, adulterated form. In the case of the Shaft Graves it is already merging with the arts and techniques of Crete and the Levant. In the case of Phrygian art, to revert to the starting-point, we glimpse an original nomadic contribution to the wood-carvings whose makers had had a confrontation with the traditions and motifs of the Orient (neo-Hittite, Assyrian, North Iranian). But it may be possible that some of the "nomadic" features which the Phrygians carried had earlier been consolidated in peripheral arts of Eastern Anatolia and Northern Iran. Much more analysis of the no-man's land between Anatolia and the steppes will have to precede the final verdict. Remarkable examples of animal stylization (rather than style) occur in Transcaucasia, e.g. on the gold bowl from Kirovakan

excavated by B. B. Piotrovsky.[8]) If there are similarities between the lions on this vessel and Miss Kohler's plate XVII, 2, they are no longer of strictly nomadic nature, but it would seem that mannerisms had settled down in the East of Anatolia during the Bronze Age.

The interplay of Phrygian, nomadic and Transcaucasian art takes place in the East. The wooden animals from Gordion may not have come to Phrygia via the Bosphorus with the Thracian immigrants, but the question of oriental elements in the Phrygian kingdom is of no direct relevance here.[9])

A problem which was raised at the symposium, but which in its vastness does not vindicate more than a tentative formulation, is the similarity of Indo-European immigration patterns in Greece, Asia Minor, Mesopotamia and Iran. In the series of invasions by Bronze Age and Iron Age Greek tribes, Hittites, Phrygians, Kimmerians, Medes, Scythians and Persians, one wonders to what extent all of them, in addition to their linguistic affinities, may have had some kind of artistic, nomadic common heritage. It was pointed out by Professors E. Porada and R. Frye that the most rational way of investigating this would be the comparison of burial customs, rites and tomb-gifts, involving religious beliefs as well as art forms. One could work out in detail the possibility of a common artistic heritage within the field of portable and potentially nomadic art for the Iron Age Greeks and Phrygians, or the Bronze Age Greeks and Hittites. Some scholars will be extremely sceptical of such enterprise, claiming that there is *no* art of the nomads in the stages when the ancestors of Greeks and Hittites still roamed somewhere close together in the steppes of Eurasia.

Gradually our material will increase and with further excavation the amount of known, sedentary artistic elements will cancel many hypotheses and doubts. If after much more work and analysis intrusive elements will still defy explanation on the basis of established traditions, a better case may be made for the concept of a minimum repertoire of nomadic, artistic traits belonging to the great, partly Indo-European, reservoir of the steppe-zone.

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[8]) A. Mongait, *o.c.* p. 125, plate before p. 125.

[9]) Cf. my forthcoming note on *Mita, Mushki and Phrygians* in the H. T. Bossert Memorial Volume (Istanbul).

PLATES

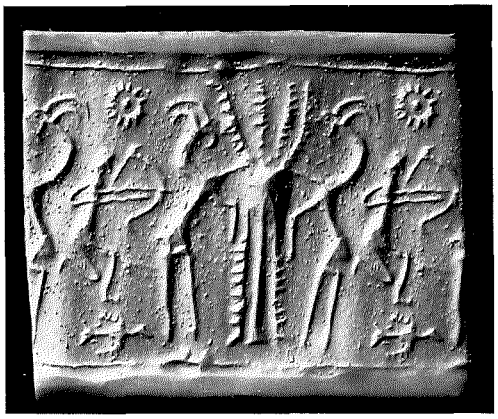

Fig. 1

Fig. 2

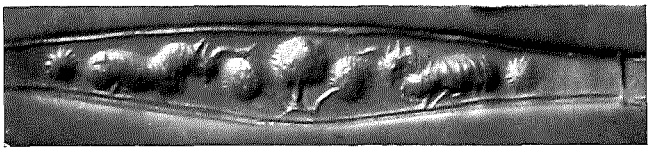

Fig. 3

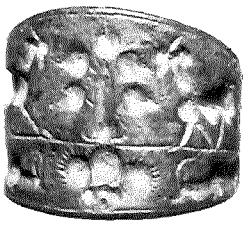

Fig. 4a

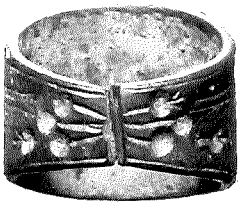

Fig. 4b

Fig. 1a

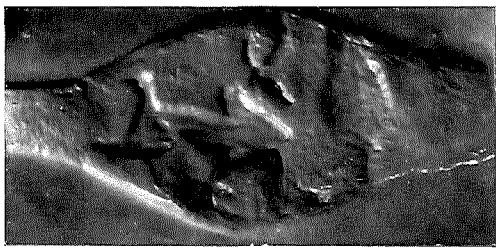

Fig. 1b

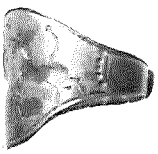

Fig. 2a

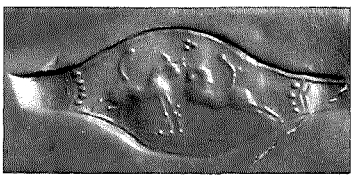

Fig. 2b

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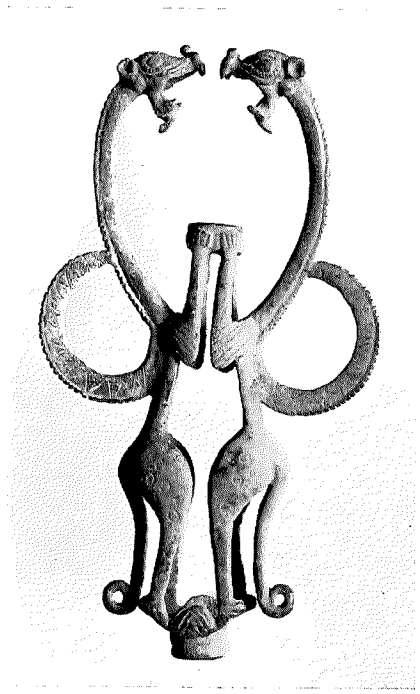

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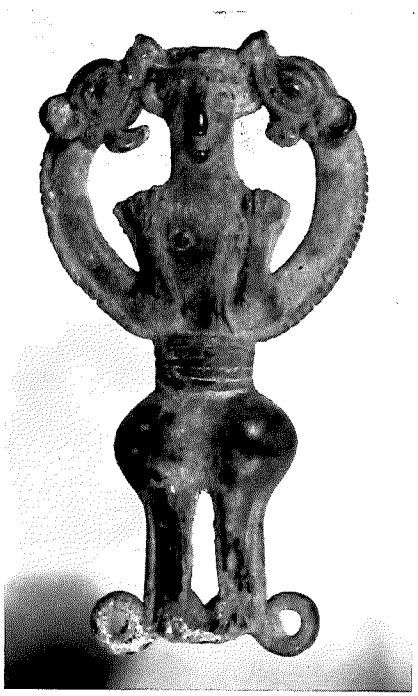

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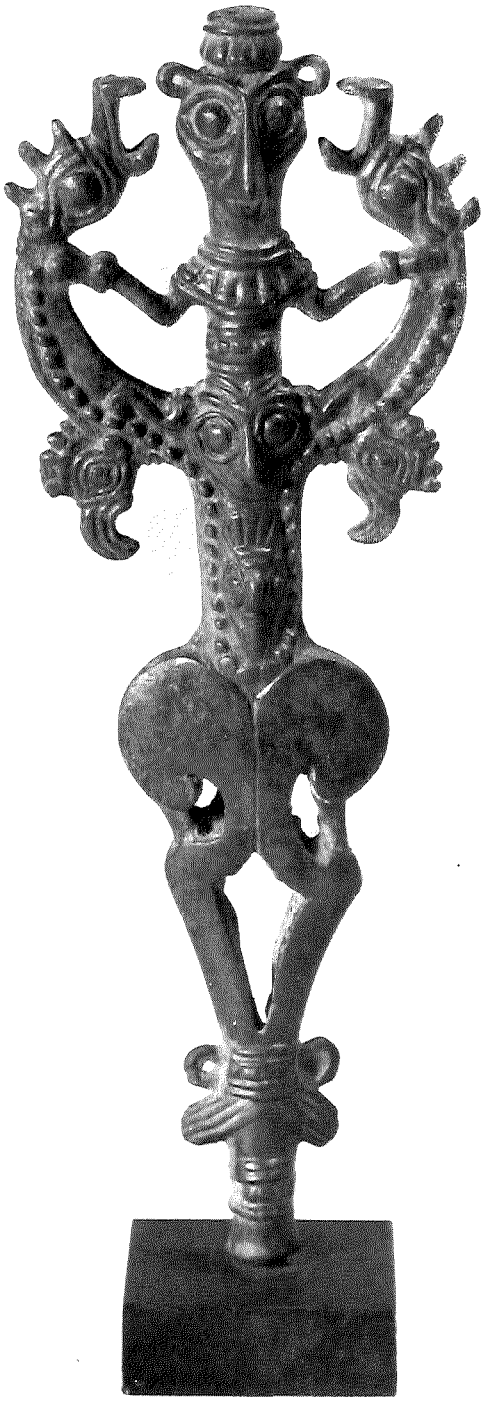
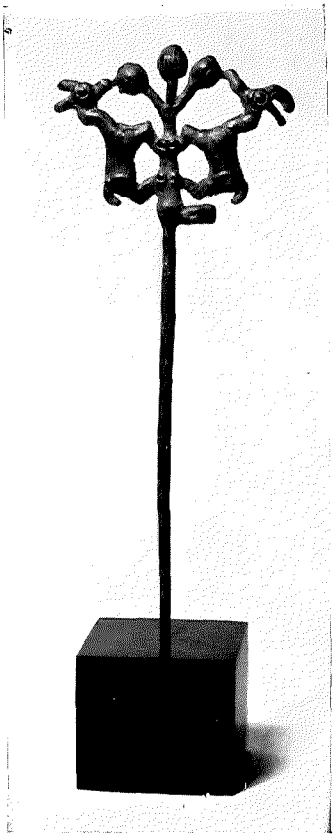


Fig. 1



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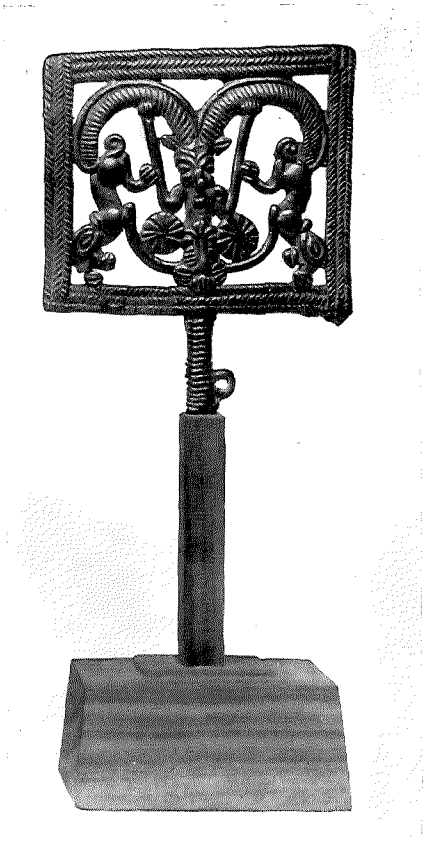

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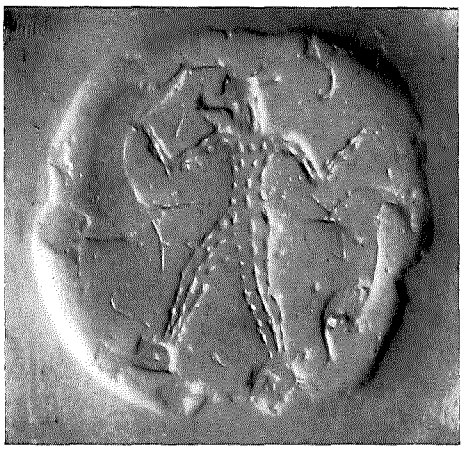

Fig. 3

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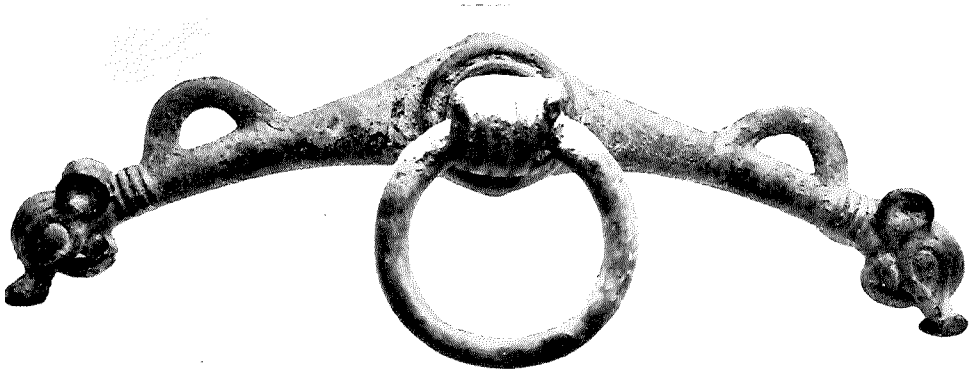

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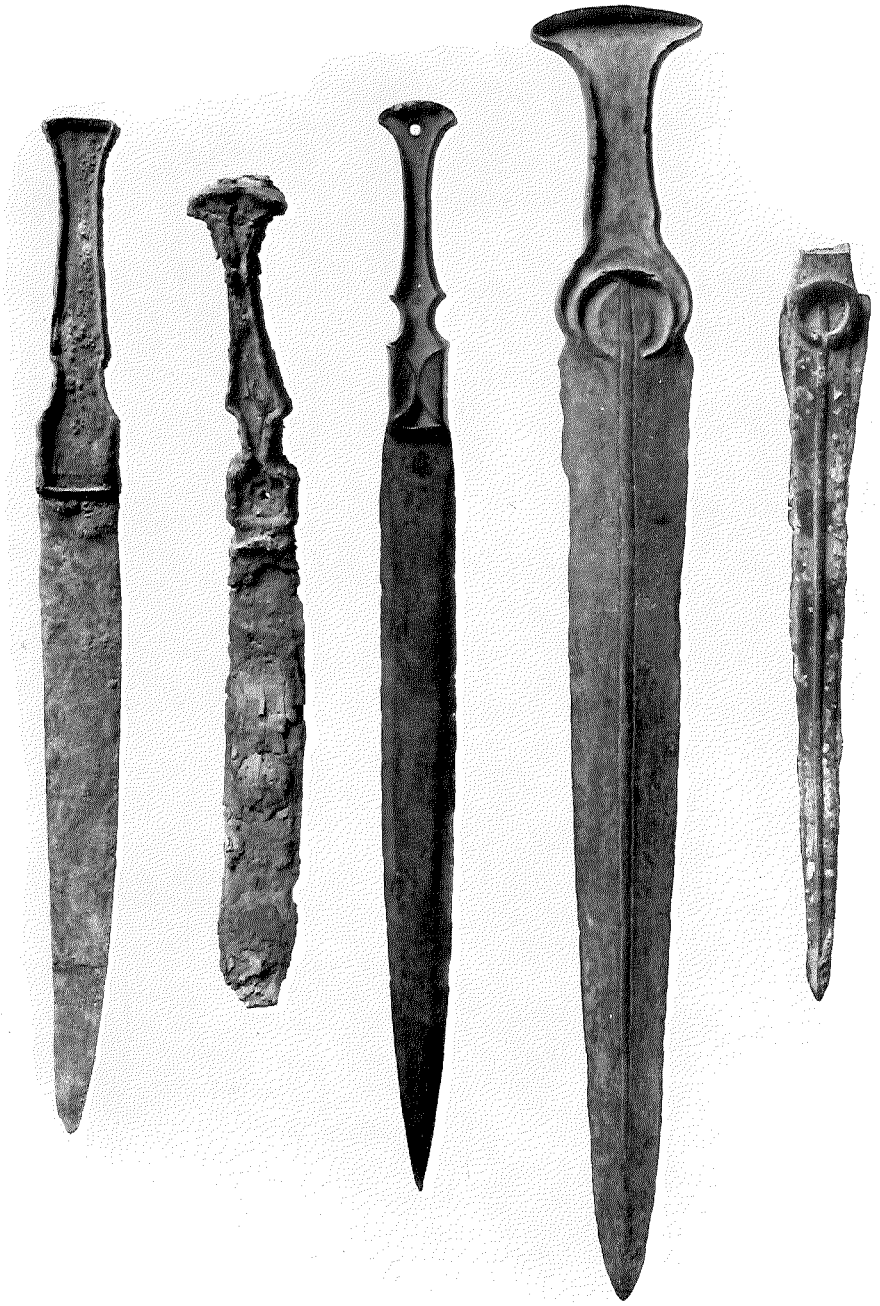

Figs. 1-5

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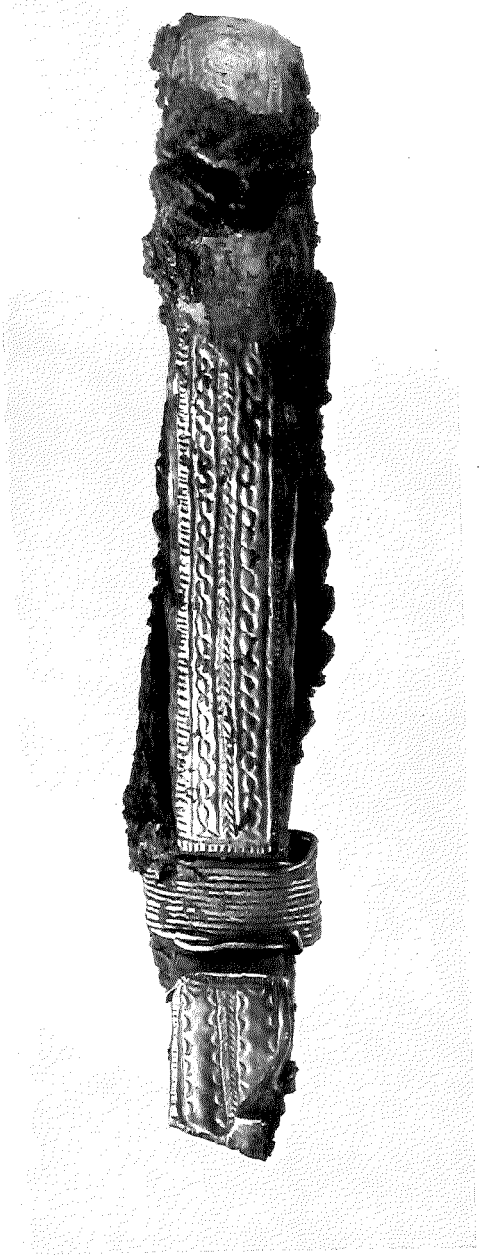

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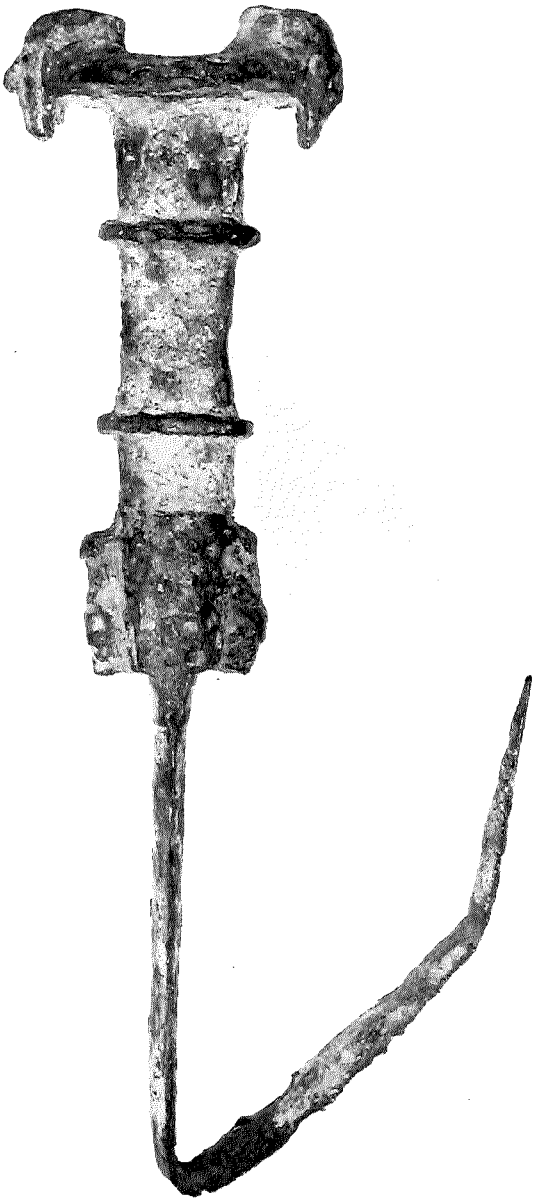

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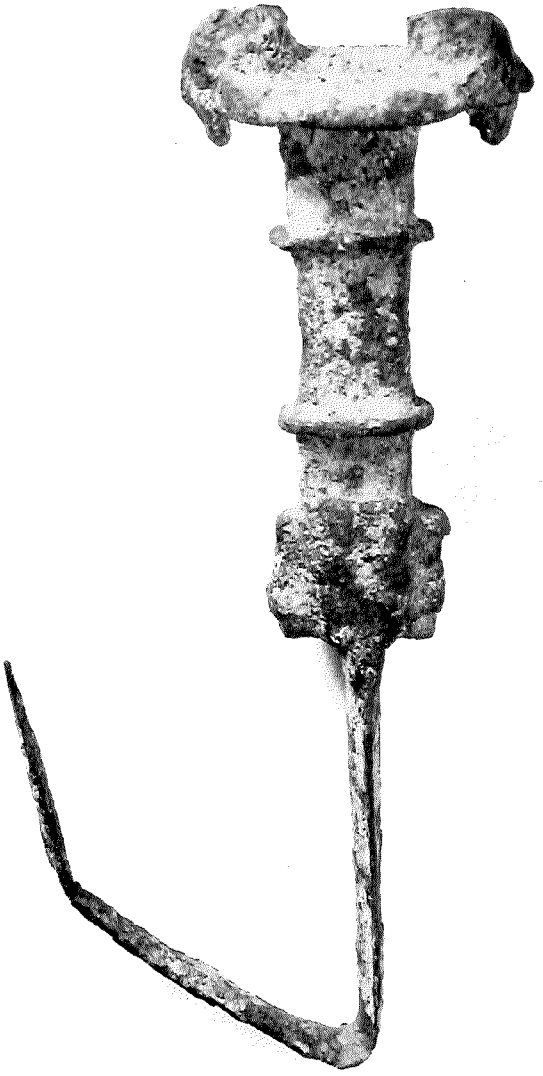

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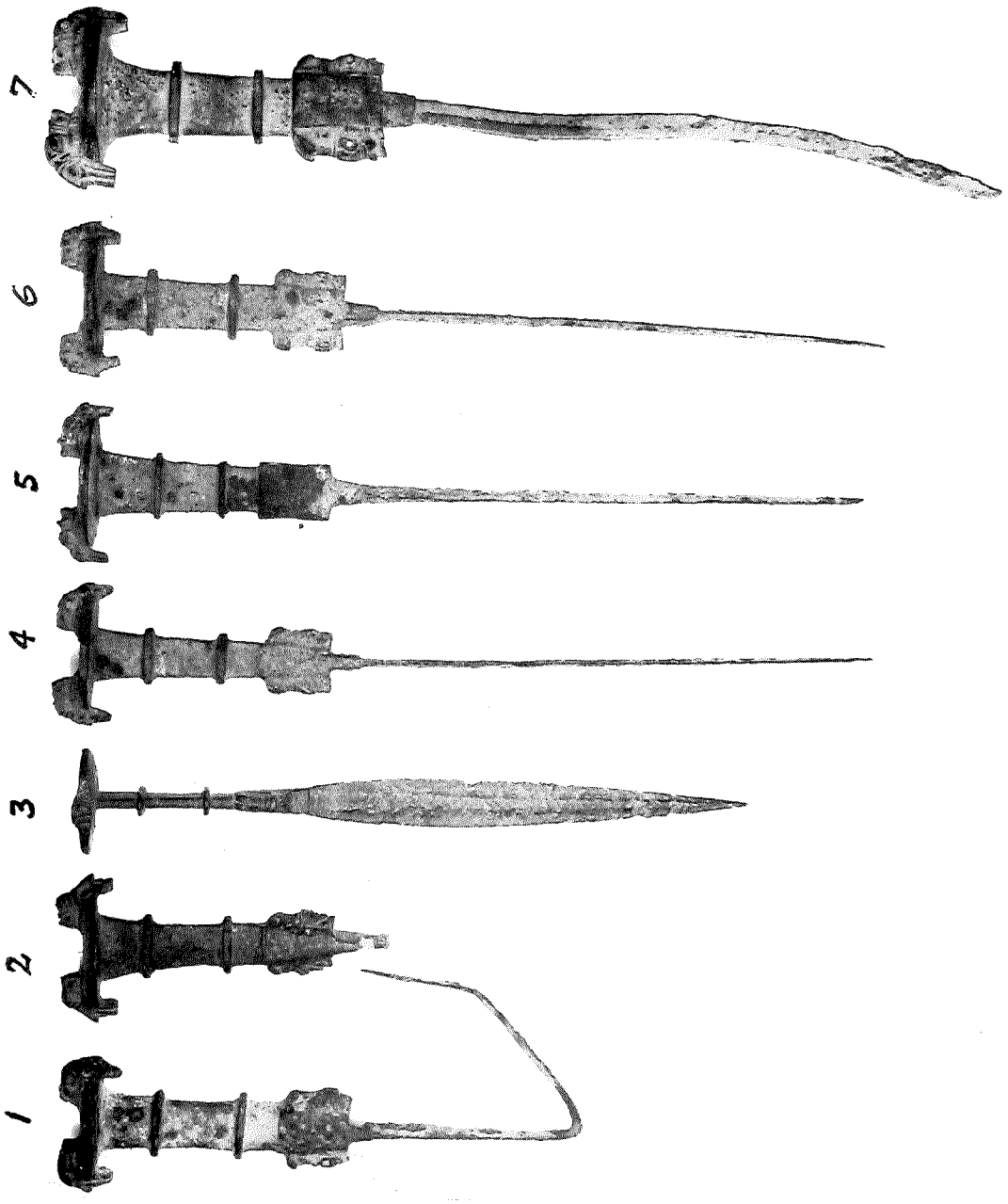

Figs. 1-7

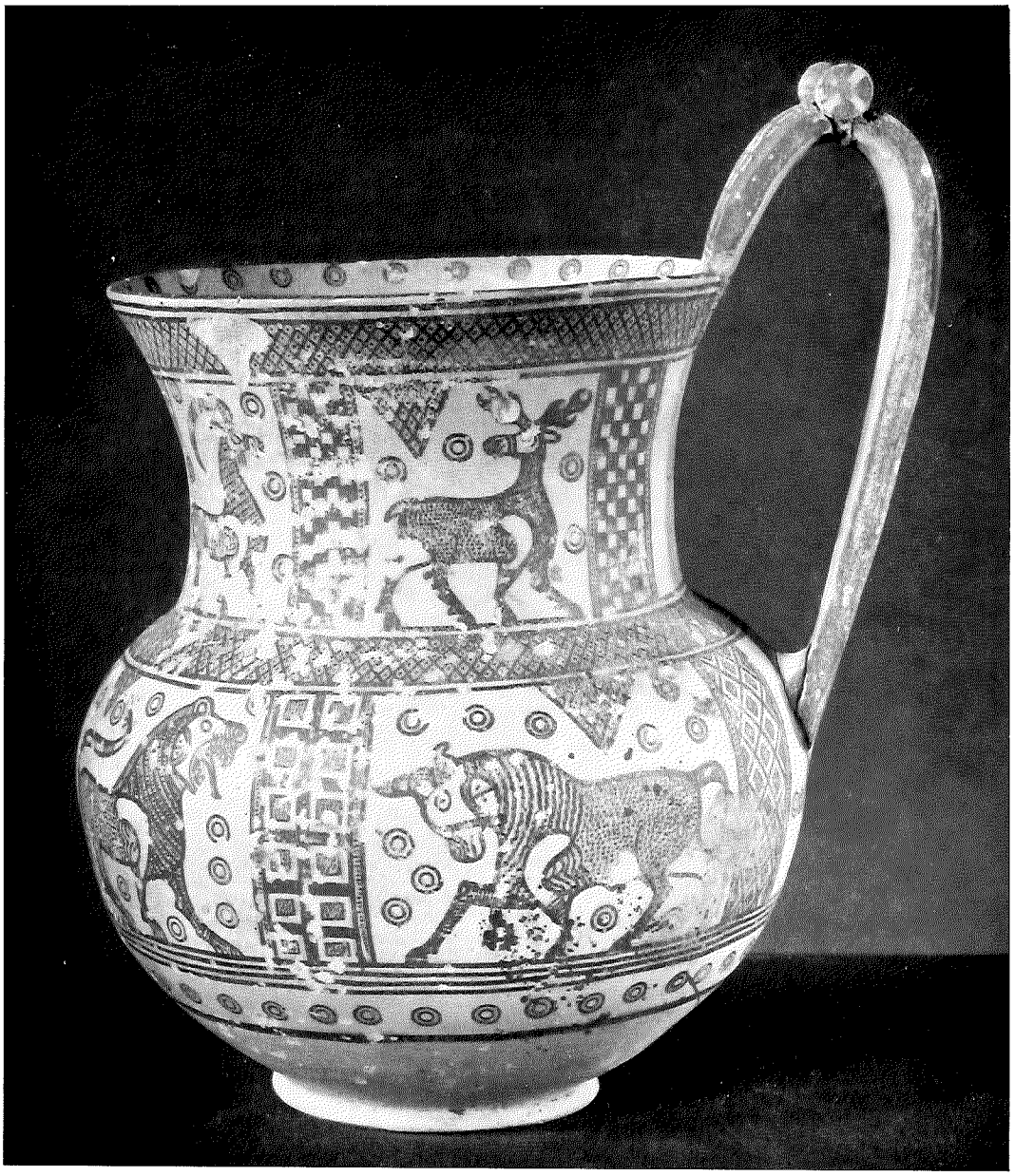

Fig. 1

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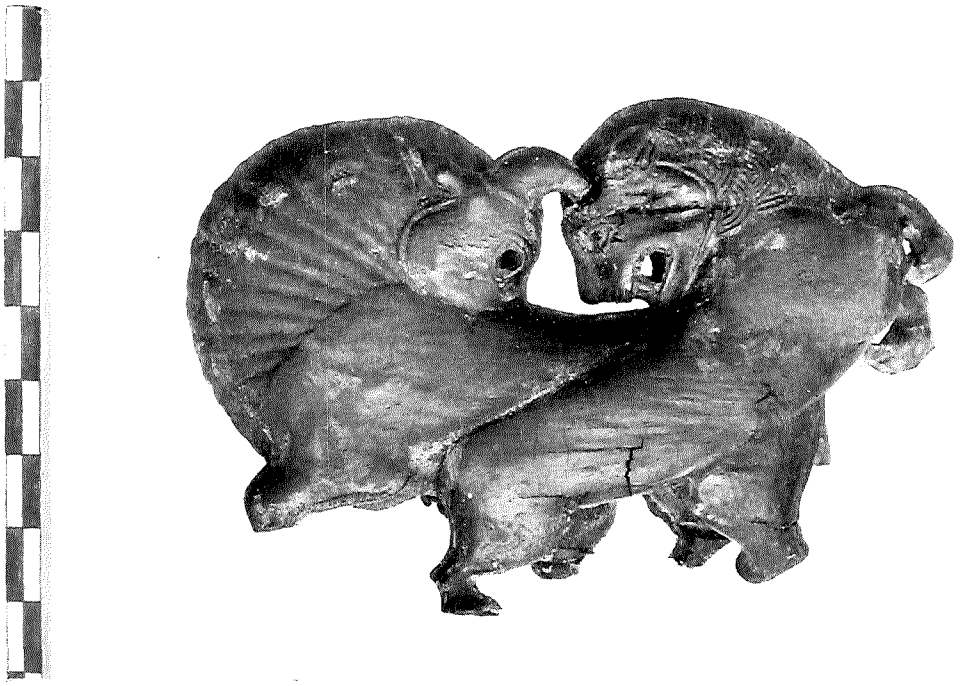

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Fig. 1

Fig. 2

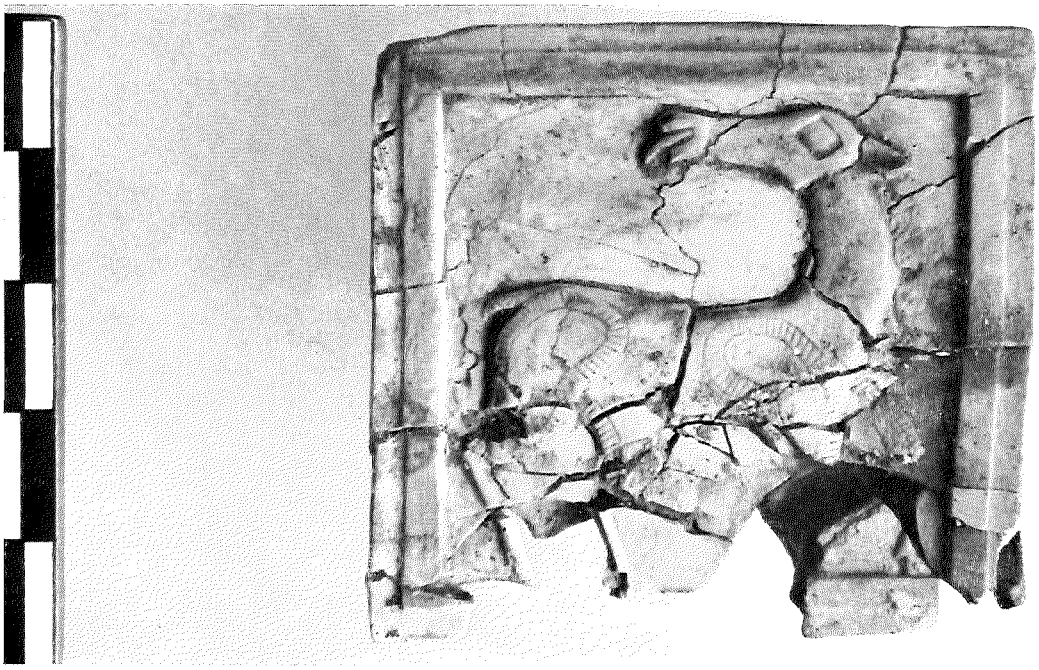

Fig. 1

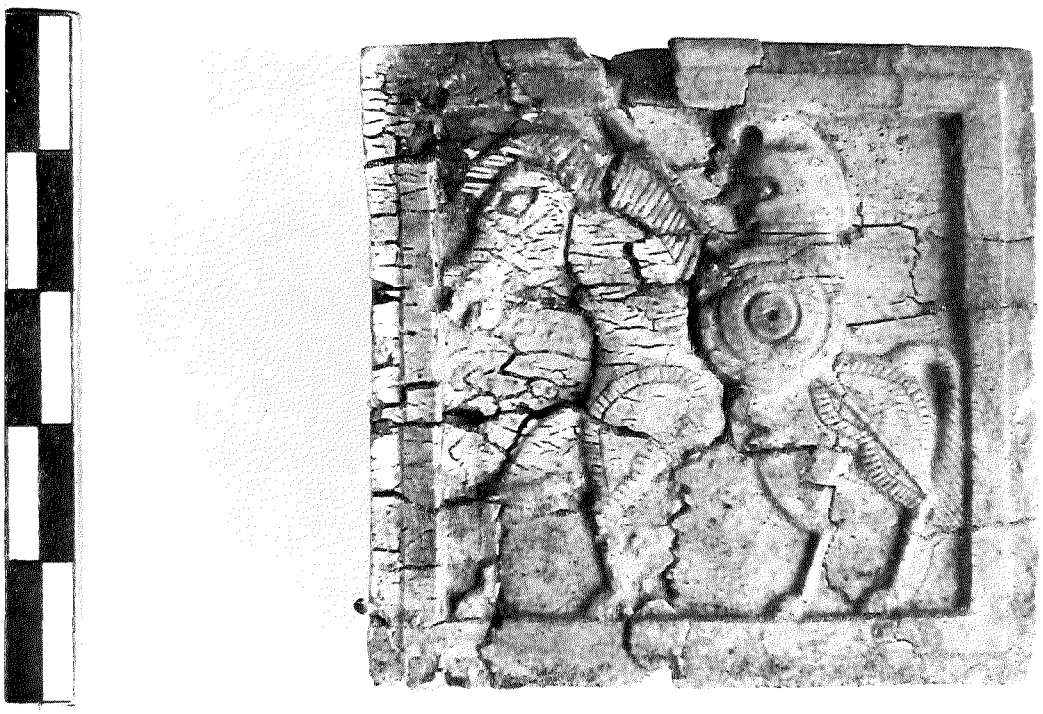

Fig. 2